The OIL WEEKLY

A Journal for Oil and Gas Producers and Field Men

March 6, 1925 — 10 Cents A Copy

It's a Wilson

"It's sure OK for Tubing Service!"

—the New

WILSON TUBING TONG

"The handiest, general-purpose device I ever saw!" "Couldn't get along without it!" Our field men are hearing complimentary expressions like these every day about Wilson Tubing Tongs. Once YOU have tried out this lightweight, sure-grip, fast-working time-saver you'll be equally as enthusiastic. Wilson Tubing Tongs incorporate the famous spring-latch mechanism; are up to our high standard of excellence in every way and are truly a masterpiece of scientific engineering. Send for special literature TODAY!

Sales Offices:
Tulsa, Oklahoma,
409 Atlas Life Bldg.
Ft. Worth, Texas
704 Van Wagoner Bldg.

Wilson & Willard Mfg. Co.
MANUFACTURERS
It's a Wilson
Distributed By WILSON OIL TOOLS CORPORATION
Factory and Distributors Office
2301 E. Vernon Ave.
Los Angeles, California, U.S.A.

Sales Offices:
New York,
141 Broadway,
Room 1310

"OILWELL"

OIL BATH ROTARY SWIVEL

All working parts operate in a bath of oil, which eliminates the constant care of lubrication.

The swivel will not bind in operation.

No sand, grit, or other substances can come in contact with the moving parts, as all working parts are completely enclosed. This insures long life to the parts.

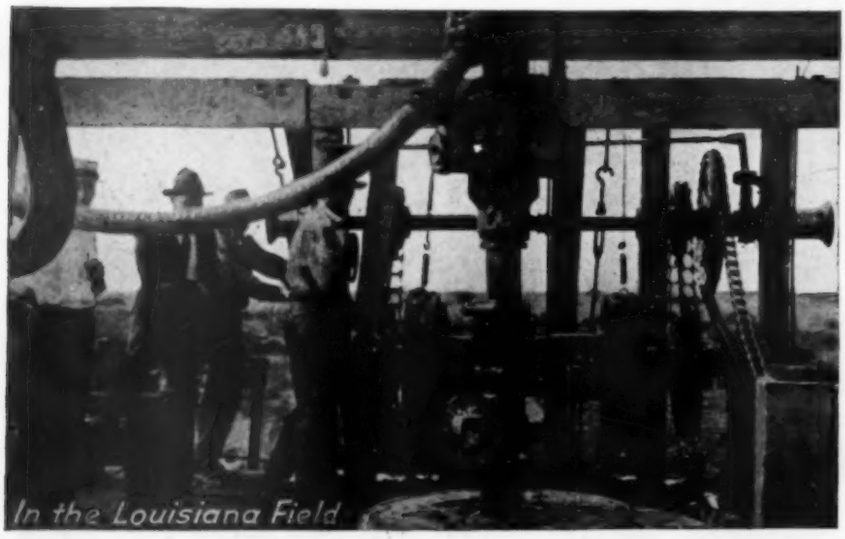
All glands are packed and adjusted from the outside, without removing any part of the swivel. One "OILWELL" Oil Bath Swivel will do the work of two ordinary swivels, as you can use it continuously. There is no need for an extra swivel for emergencies.

"OILWELL" Oil Bath Rotary Swivels are described in detail in Bulletin No. 55—write for a copy or get one at any of our 100 Branches.

"OILWELL" Rotary Outfits, being made up of component parts each of which is a leader in its line, are vastly superior to any other outfits.

Imperial Hose Clamp

"OILWELL" Oil Bath Rotary Swivel



In the Louisiana Field

OIL WELL SUPPLY CO.

NEW YORK—LOS ANGELES—PITTSBURGH, U.S.A.—SAN FRANCISCO—TAMPICO—LONDON

WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

THE OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 1716 Dallas Ave., Houston, Texas. Subscription price $1.00 per year; 10 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879.

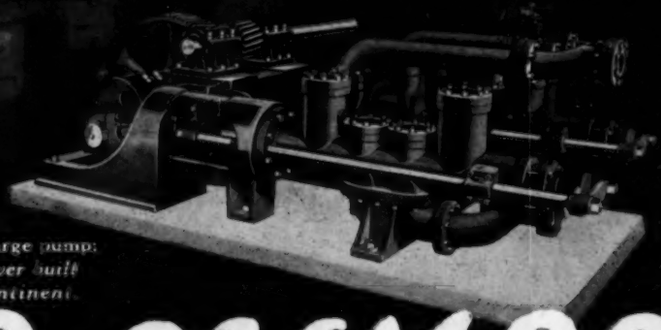
Real Oil SERVICE

GASOS are the sort of pumps the experienced superintendent vows he'd build if he were building 'em himself. Users tell us they have an amazing habit of working 24 hours a day, week after week and year after year - with practically no attention.

Of course there is a reason for this service. It's based on design and supported by the finest materials and craftsmanship we can buy.

That explains also why our company is the fastest-growing manufacturer of oil-industry pumps in the business. Have you our catalogue?

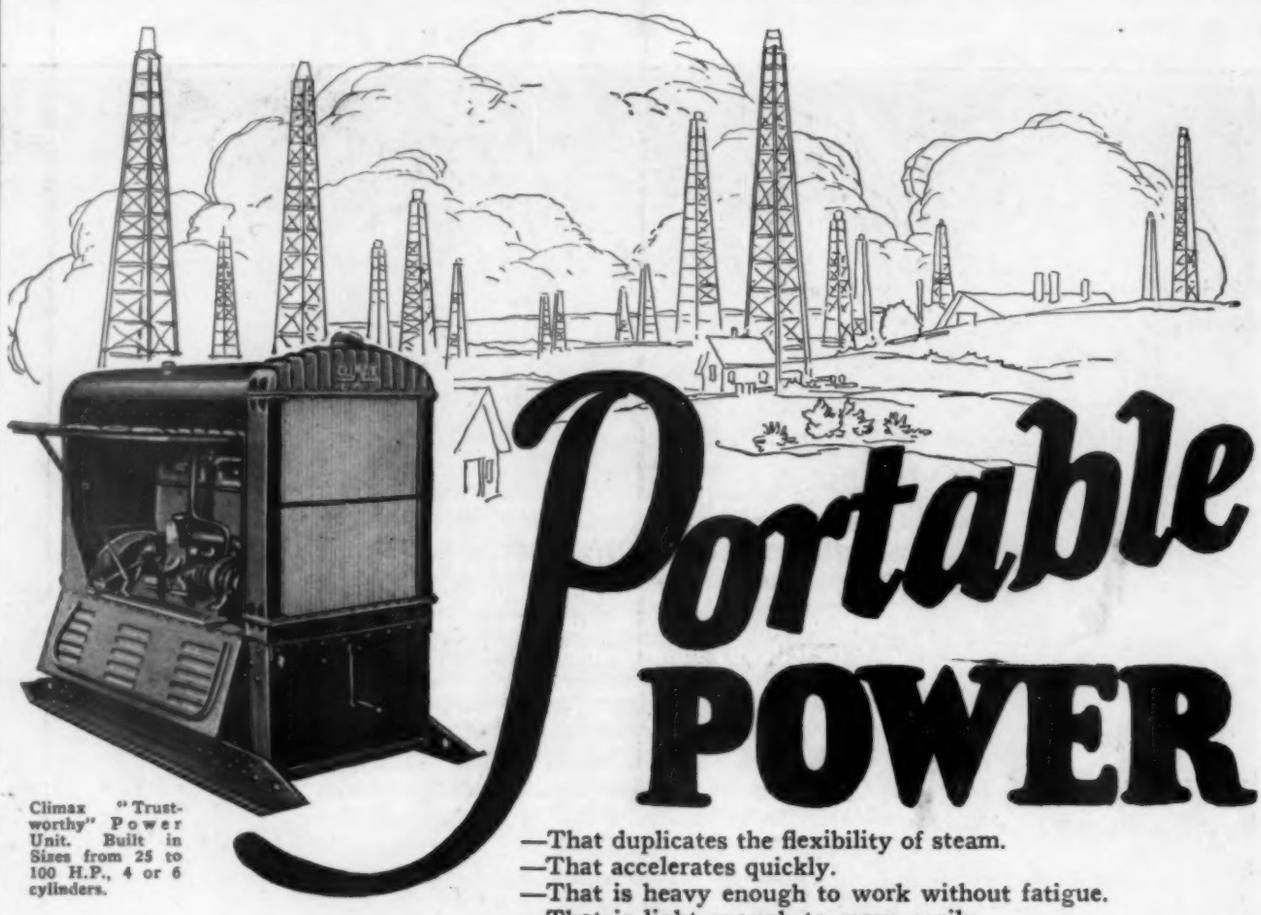
GASO PUMP & BURNER MANUFACTURING CO.
TULSA, OKLAHOMA



12-in. discharge pump:
Biggest ever built in Midcontinent

GASO PUMPS
for every oil industry need

Say you saw it in The Oil Weekly



Climax "Trustworthy" Power Unit. Built in Sizes from 25 to 100 H.P., 4 or 6 cylinders.

Portable POWER

—That duplicates the flexibility of steam.
—That accelerates quickly.
—That is heavy enough to work without fatigue.
—That is light enough to move easily.
—That is simple for operator to handle.
—That will solve your electric drilling problem.
—That will run continuously without shut-down.
—That will furnish electric light for night work.
—That is economical in fuel and lubricating oil.
—That is not over rated as to power by the manufacturers.
—That requires almost no repairs.
—That is economical in first cost.

All these advantages are yours in

CLIMAX

Trade Mark Reg. U. S. Pat. Off.

The "Trustworthy" Power Unit

Manufactured by

CLIMAX ENGINEERING COMPANY

51 West 18th Avenue, Clinton, Iowa

Also Builders of Climax Refrigerating Units

Sales and Service Stations in the following Cities:

Climax Engineering Co., 610 W. Randolph St., Chicago, Ill.
Beckwith Machinery Co., Cor. Front & Brown Sts., Pittsburgh, Pa.
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Carl Dunning Supply Co., 828 Lemcke Bldg., Indianapolis, Ind.
Brandeis Machinery & Supply Co., 325 W. Main St., Louisville, Ky.
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Mills & Lupton Supply Co., 1146 Market St., Chattanooga Tenn.
Tulley Equipment Co., 508-9 Title Guaranty Bldg., St. Louis, Mo.
Climax Engineering Co., 1001 N. Orange Drive, Hollywood, Calif.
Edward R. Bacon Co. Inc., Folsom at 17th St., San Francisco. Calif.
Woobank Pump & Machinery Co., 215 Castle Bldg., Tulsa, Okla.
F. W. Gartner Co. 3315 McKinney Ave., Houston Texas
W. A. Browning Machinery Co., 303-5 Exposition St., Dallas, Texas
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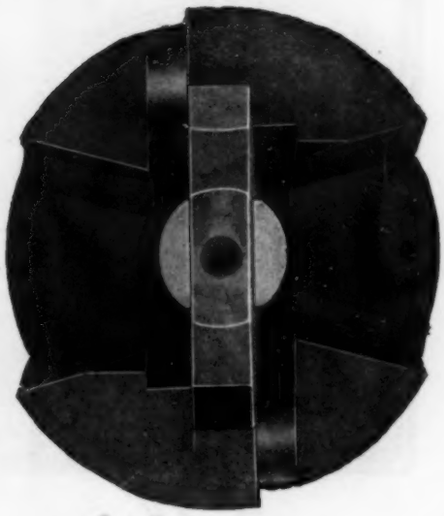

The Strongest Ever Underreamer Made

Oversize Cutters

are exceptionally strong, with more stock in them than others. Cutting edges are extra wide. Seat very firmly in body, giving rigidity of a drilling bit.

Heavy Steel Body

is in no sense a hollow cylinder, but is drop forged from a solid block of steel, with extensive bearing surfaces for cutters. Cutter bearing surface three times greater than that of any other underreamer.

THE GUIBERSON CORPORATION

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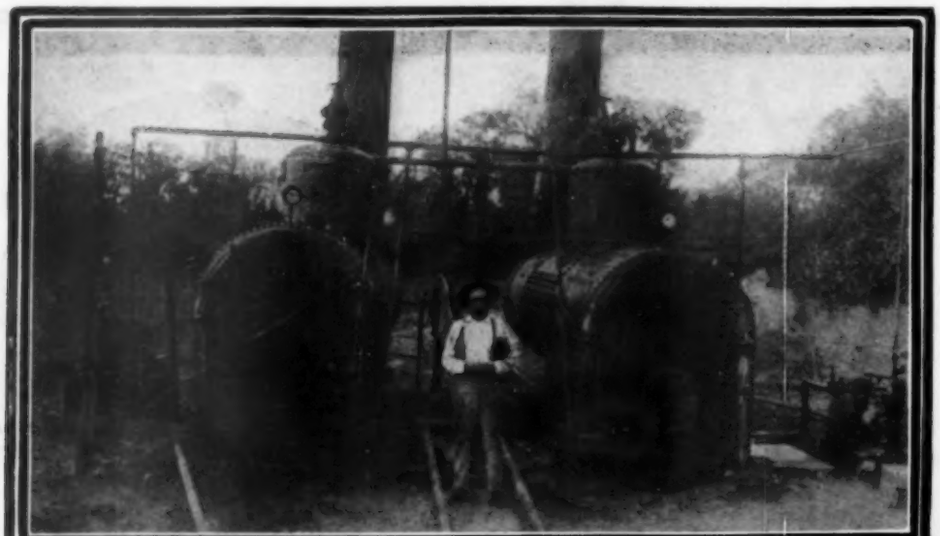
GUIBERSON

BETTER BE SAFE THAN SORRY

Say you saw it in The Oil Weekly



"The Biggest and Best Pair of Boilers on any Lease in Texas—"

The photograph shows B. F. Bissonett, one of the members of the Waggoner McKinley drilling crews located in Luling, Texas with his pair of Titusville A. S. M. E. Code 70 H. P. Boilers.

B. F. says—"I want you to take a picture of the biggest and best pair of boilers on any lease in Texas." B. F.'s recommendation is typical of the satisfaction and performance Titusville Boilers are giving wherever installed.

Ask the Continental man for facts.

Titusville Oil Field Boilers

The TITUSVILLE IRON WORKS Co.
TITUSVILLE - PENNA.

TITUSVILLE EQUIPMENT
Oil Country Boilers
Steam Drilling Engines
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Rotary Machines Rotary Drawworks
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Crown Blocks
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Rotary Drilling Specialties

TITUSVILLE OIL COUNTRY MACHINERY
RUGGED - ENDURING

AFFILIATED COMPANIES FOR DISTRIBUTION
For Mid-Continent, Eastern, Western and Coastal Fields:
The Continental Supply Co.
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The Republic Supply Company of California
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The Continental Well Supply Company,
No. 2 Rector Street,
N. Y. City

For Complete PIPE LINE UNITS

PARKERSBURG Bolted Steel Tanks with Swing Pipe Mechanisms are economical units for pipe line storage. These units can be supplied completely equipped with vapor-tight fixtures for prevention of losses through evaporation.

Parkersburg Swing Pipe Mechanisms can be applied to any steel tanks — any make or size — to a farm of 55's, a battery of Parkersburg bolted, or to other tanks made from lighter gauge materials.

Swing Joint doesn't depend upon side sheets for rigidity. It is *self-supporting* — rigid — and will not sag, twist, or bind.

Winch is enclosed in a gas-tight Hatch Box, for installation on the tank deck, where it is convenient for the gauger. The cable is not exposed to the weather.

Swing Pipe can be supported in any position without need for ratchets or locking devices — the spooling drum operates through worm and gear.

The Parkersburg line includes tanks and equipment developed to meet the handling and storage requirements of every producing field. Well-stocked Parkersburg warehouses — and Parkersburg Tank-setting Services — are convenient to your operations.

Written inquiries given prompt, careful attention

THE PARKERSBURG RIG & REEL CO.

Main Office and Works
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30 Church Street

California Representatives
BUCK & STODDARD 485 California St., San Francisco, Calif.
Box 720, Arcade Station, Los Angeles, Calif.

District Offices and Distributing Warehouses from which Parkersburg Service is Available

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OKLAHOMA
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Hominy
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Corsicana
Luling
Olney
Orange
Panhandle
Ranger
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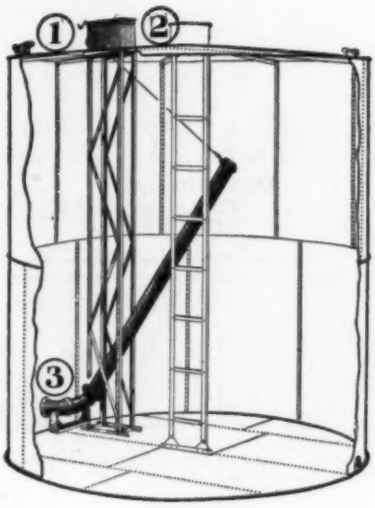
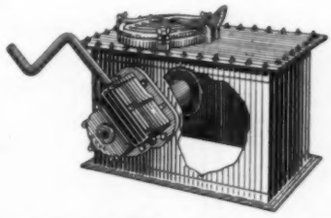
**District Offices*



1 Parkersburg Self-Clamping Gauge Hole Covers remain closed and tight until opened by raising the foot-lever. The joint between the lid and the body of the cover is sealed by a special composition gasket.

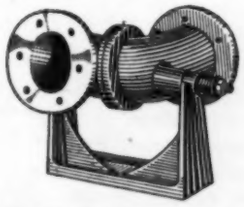
These gauge hole covers are recommended for flow, lease, or stock tanks, and for high or low pressures.

The Self-Clamping feature is a simple toggle-link mechanism. A glance at the illustration will convince you of its simplicity and its merits.



2 Parkersburg Hatch Box, enclosing the spool and cable, is electrically welded at joints and to re-enforcing angles. The cover is provided with a "look" opening and lid. The box is bolted to the tank deck — with gasket between, making a gas-tight joint. Use of stuffing boxes is eliminated.

Hand crank turns spool through a worm and gear — no locking device needed to hold swing pipe in any position. The latticed column support for the hatch box gives added stiffness to the deck, and carries the weight of the swing pipe, hatch box and winch.



3 Both halves of the Parkersburg Swing Joint are held in close contact by a rod and coiled spring; the joint is leakproof. The supporting cradle carries the weight of the Swing Joint — eliminating any tendency for sagging, twisting, or straining on side sheets or bolts.

Gulf Refining Company

OKLAHOMA
TEXAS
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Refiners of PETROLEUM

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Still Another Bessemer Leader—the

BESSEMER DIESEL

AGAIN Bessemer confirms its 28 years of leadership in Oil Field Equipment, this time with a perfected Diesel Engine for Oil Industry service.

Years of internal combustion engine experience and thorough Diesel engine research have resulted in a masterpiece of Diesel engine design and construction—a power source exceptional in its simplicity, economy and ruggedness.

The Bessemer Diesel is not an experiment, it is an engine which has been thoroughly proved by the toughest service in widely diversified uses. Hundreds of horsepower of these engines have given positive proof of their dependability and economy in extended service for the Oil Industry, Municipalities, Industrial plants and Marine users.

This newest addition to the Bessemer line of "Better Oil Field Equipment" embodies the utmost in engineering skill. It employs solid injection of fuel oil resulting in safety and fuel economy, while the many refinements in Diesel engine construction and the usual high Bessemer standard of quality materials make the Bessemer Diesel Engine an unequalled unit for all heavy-duty power requirements of from 50 H. P. to 1000 H. P.

Write for complete engineering details and descriptive catalogue

THE BESSEMER GAS ENGINE COMPANY
62 York Street Grove City, Pa.

BESSEMER

BESSEMER OIL FIELD ENGINES – COMPRESSORS VACUUM PUMPS – ROLLER PUMPING POWERS

The STANDARD COLLAPSIBLE ROTARY DRILL

and Core Barrel are simple in construction, made of the best alloy steel, and all parts scientifically heat treated.

It descends inside the drill stem and expands to the required diameter and is securely locked in position for drilling.

When the bits become dull, a lifting tool is lowered by a cable, which immediately engages the top of the drill, collapses the bits and brings them to the surface for renewal.

Changing cutters is a short proceeding,—it requires only a very few minutes.

The cutters are manufactured of a special alloy steel, made especially for this drill, are scientifically heat treated to secure uniform hardness, and cost about the same as sharpening a fishtail bit by an oil field blacksmith.

The drill eliminates tool joints, prevents boulders from falling into the hole, and abolishes the inclination of drillers to continue revolving the rotary after the cutting edge of the drill is worn off, and by reason of the cone formed by the cutters, extending upward from the bottom, a straight hole is assured.

Write for folder containing full information

INVENTED, PATENTED AND MANUFACTURED BY

O. M. CARTER

W. T. HILTPOLD, SALES AGENT
206-7-8 SCANLAN BLDG.
HOUSTON, TEXAS

Say you saw it in The Oil Weekly

Photo courtesy National Petroleum News

THIS IS WORTHAM, THE FAMOUS TEXAS OIL TOWN

Butler Bolted Tanks Are Storing Wortham's Oil!

BUTLER BOLTED TANK, SHOWING DECK CONSTRUCTION

Saturday night before Thanksgiving the gushers started flowing at Wortham, Texas, and during Thanksgiving week we received our first order for shipment of bolted tanks. Other orders followed quickly.

These tanks were set up at once and they are faithfully doing their work. Butler Tanks with Butler service are always available and dependable.

Butler Construction

Butler construction is precise. Modern machines with a single movement punch holes in four edges of a steel sheet. No chance for human error there! All sheets fit right—they must and they do!

That's why Butler Bolted Tanks assemble so easily and quickly, why they are so desirable and trustworthy. That's why they are always in the limelight and conserve valuable assets.

Butler Prices

Butler prices are very reasonable and strictly in keeping with Butler quality. Write one of our dealers for any desired details, or wire either factory direct.

For Speedy Service

Get in touch with one of these conveniently located dealers:

M. & V. Tank Co., at Wichita Falls, Vernon and Olney, Texas. Drane-Humphrey Co., at Fort Worth and Big Lake Texas, Tulsa and Holdenville, Okla. May Tank & Supply Co., at Casper and Salt Creek, Wyo. M. A. Trimmer, at Blackwell, Okla. Wilson Tank & Culvert Co., at San Antonio, Texas. Butler Manufacturing Co., at Los Angeles, Calif., Bartlett Building, Telephone TUcker 5457.

STEEL BUTLER PRODUCTS

Butler Manufacturing Co.

Kansas City, Mo. **Minneapolis, Minn.**

OTHER BUTLER PRODUCTS

Ready-Made Steel Buildings, Cans, Funnels Buckets. Underground Tanks, Storage Tanks, Measuring Pumps, Etc.

Johns-Manville Insulation and Transite Paneling on a battery of double pipe chillers.

Protecting cold to save heat

WHENEVER a heat unit sneaks into your refrigerated equipment several other heat units must be sacrificed in the power house to drive it out again.

Hence the big fuel savings made possible by special Johns-Manville Insulations for cold settling tanks, chillers, cold piping and brine cooler equipment. Long experience with such oil industry problems has thoroughly equipped us to apply the most efficient and durable insulating materials so that they yield the highest efficiency and greatest permanence.

These insulations are sealed to prevent air-carried vapor from condensing and freezing inside them—an essential point in maintaining high efficiency. They have demonstrated their greater economy in refineries throughout the country.

JOHNS-MANVILLE Inc., 292 Madison Ave., at 41st St., New York City
Branches in 62 Large Cities
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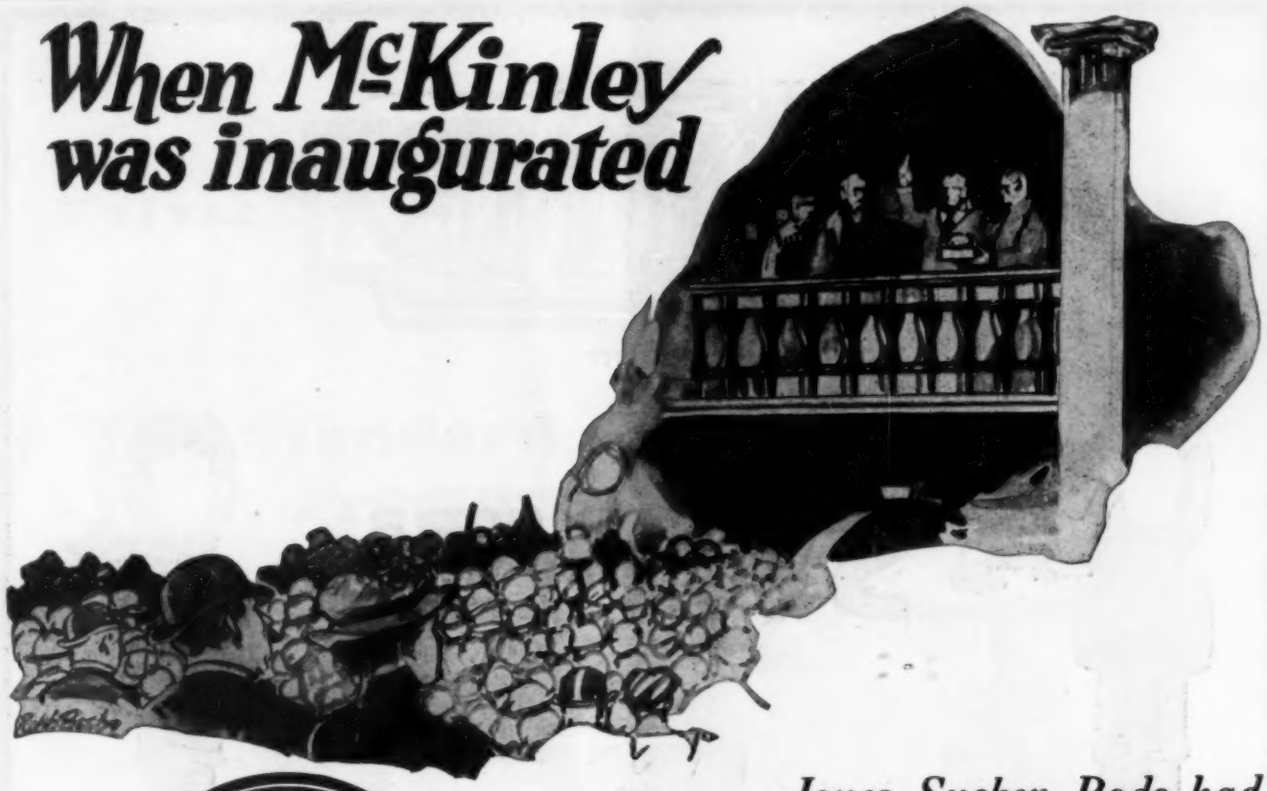
Asbestos and its allied products
INSULATION
BRAKE LININGS
ROOFINGS
PACKINGS
CEMENTS
FIRE PROTECTION PRODUCTS

JOHNS-MANVILLE

Oil Industry Department

Say you saw it in The Oil Weekly

When McKinley was inaugurated



JONES
The recognized standard of quality in Sucker Rod construction for over 30 years.

Jones Sucker Rods had been "in office" for several years and had been elected by popular vote as the best Sucker Rods on the Market.

JONES "perfect" forged-end sucker rods

Jones Sucker Rods today are still the world's leaders in point of strength and longevity.

Times change—deeper and still deeper drilling has necessitated stronger, more dependable Rods—but Jones has always anticipated conditions—has been a step in advance of competition. The Forged-End Rods—Jones "Giant" and "Perfect"—are the greatest improvements in Sucker Rod manufacture that has ever been made.

Get our latest catalogue—"The Inside Story"—know all the facts about this very important detail of your business.

The S. M. JONES Co. Toledo, Ohio.

Mid-Continent Office: 601 Wright Bldg., Tulsa, Okla.

THE LAYNE

PATENT

SWIVEL

The strongest Oil Bath Swivel on the market for its weight

Weighs less than 155 pounds

Easily handled by one man without cat line

NOTE ITS SIMPLICITY—NO COSTLY REPLACEMENTS

LAYNE & BOWLER CO.

HOUSTON, TEXAS

Say you saw it in The Oil Weekly

Valves **KEROTEST** Fittings

REGISTERED U.S. PAT. OFF.

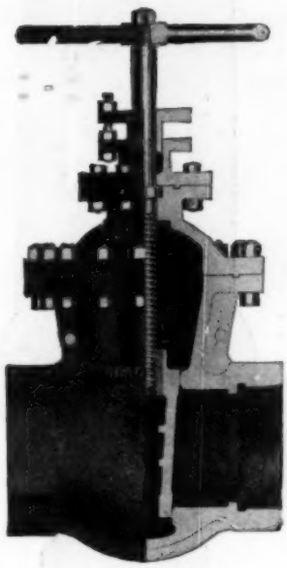
The Standard of Quality for All Pressure Oil Fields

In high pressure fields, particularly those of California, Mexico and Texas, where a gas pocket may suddenly form and develop a pressure that strains or breaks your well-setting —KEROTEST heavy duty cast steel valves have been giving remarkable service.

Reputable oil field operators cannot take a chance on faulty equipment. Their experience has conclusively proven to them that dependable sturdy valves and fittings like "KEROTEST" are an indispensable part of their equipment.

Kerosene tested at 2500 lbs. pressure and constructed of high quality Ilmenite Steel tells a complete story.

Let us prove it.



Manufactured by

Pittsburgh Reinforced Brazing and Machine Company

Pittsburgh, Penna.

Carried in stock and sold by

GRINNELL COMPANY OF THE PACIFIC
Los Angeles San Francisco

NORVELL-WILDER HARDWARE COMPANY
Houston Beaumont Shreveport

OIL WELL SUPPLY COMPANY
Oklahoma Kansas Colorado Wyoming

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OIL WELL SUPPLY COMPANY
Pittsburgh New York Tampico London

IDEAL

WIGLE SPRING CASING HOOK

WITH SAFETY LATCH ATTACHMENT

The Wigle Spring Casing Hook Relieves Threads of all Strains While Being Made Up or Unscrewed

The Safety Latch Closes Automatically, But Can Be Locked Open

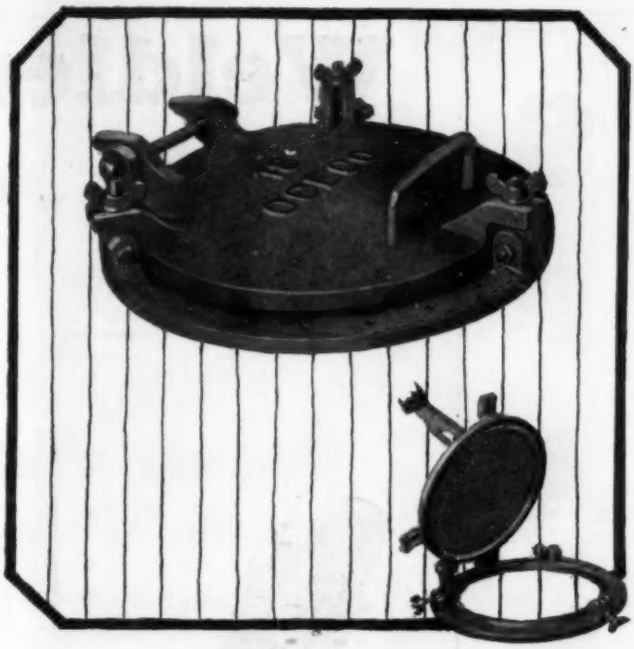
MADE IN SIZES 2½ IN. TO 8 IN.

The National Supply Companies

Say you saw it in The Oil Weekly

The New Oceco Roof Manhole

At a new low price!



THIS new OCECO Product embodies many exclusive features which make it a decidedly profitable investment for all kinds of oil storage tanks:

1. Spark-proof
   Seating ring of non-sparking metal *in cover*, thus protected against injury when ropes or cables are passed through opening.
2. Serviceable
   Cast steel. Handle cast in cover—cannot pull out.
3. Gas-tight and water-tight
   The contacting surfaces are so designed that no matter how the cover is dropped a gas-tight and water-tight joint is effected. It is impossible for water to accumulate on the seat. Three brass eye bolts hold the cover securely in place—*tight yet quickly opened.*
4. Self-closing (or not, as you specify)

Here is a Roof Manhole that is the latest modern development along this line. Contrast it with the old fashioned type which requires the removal of numerous bolts before opening, or the makeshift kind which permits the escape of valuable products and is a constant fire hazard. The OCECO has been approved by The Underwriters' Laboratories.

May we send further details and quote you on your requirements?

OCECO Equipment

Gauge & Thief Hole Covers
Roof Manholes
Safety Tank Winches
Cable Sheave Brackets
Tank Nozzles
Breather Valves
Flame Arrestors
Fire Extinguishers

The Oil Conservation Engineering Co.

Headquarters for Tank Equipment
Addison Road & N. Y. C. Tracks
CLEVELAND, OHIO

325 Iowa Building - - - - - - - - - Tulsa, Okla
809 Texas National Bank Bldg., - - - - - - Fort Worth, Tex
306 O. S. Building - - - - - - - - - - Casper, Wyo.
Beaumont Export & Import Co., Perlstein Bldg., Beaumont, Texas and Tampico, Mexico

OIL TANK **OCECO** EQUIPMENT
SAVES EVAPORATION AND PREVENTS FIRE

SPANG

Weldless Drilling Jars

Careful making of the alloy steel, together with intelligent working and proper heat treatment have built up a strength and durability in SPANG Weldless Drilling jars that cannot be found in an ordinary set of welded jars.

The SPANG Weldless Jar will wear out—certainly, like everything else—but it is most difficult to break. And it wears out only after giving a thorough, convincing service—a service that will afford you the greatest satisfaction.

Once you use the SPANG Weldless Jar you will be satisfied with no other. You can purchase a set in the size you require at any supply dealer.

SPANG
Thread Protector

Protect your Tool Joints with SPANG Thread Protectors. *Like all SPANG Products they guarantee absolute satisfaction and long, durable service.*

Points of Superiority in the Spang.

- Excellent joints.
- Greatly increased footage drilled.
- Elimination of Jar Fishing Jobs.
- Reduction of drilling risk.
- Three to five times as much service as other jars.
- Increased profits.

SPANG AND COMPANY

Butler, Penna.

Sold by Leading Supply Dealers Everywhere

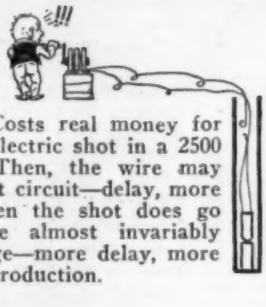
Say you saw it in The Oil Weekly

You Can Plainly See Why the
Zero Hour Electric Bomb
Is the Modern Detonator for Oil Well Shooting

It Is Not Like The Jack Squib

At best, the jack squib is a questionable method of detonating shots in oil wells. Sometimes it explodes properly—but you can't DEPEND on it. The fuse may fail to burn, or the rate of burning may vary with your calculations, or cavings will render the shot totally ineffective. Again the squib may explode in the casing—then it's COSTLY.

It Is Not Like The Electric Shot



The Electric Shot — not as questionable as the Jack but COSTLY. Costs real money for wire for an electric shot in a 2500 foot hole. Then, the wire may break or short circuit—delay, more money. When the shot does go off, the wire almost invariably forms a bridge—more delay, more money, lost production.

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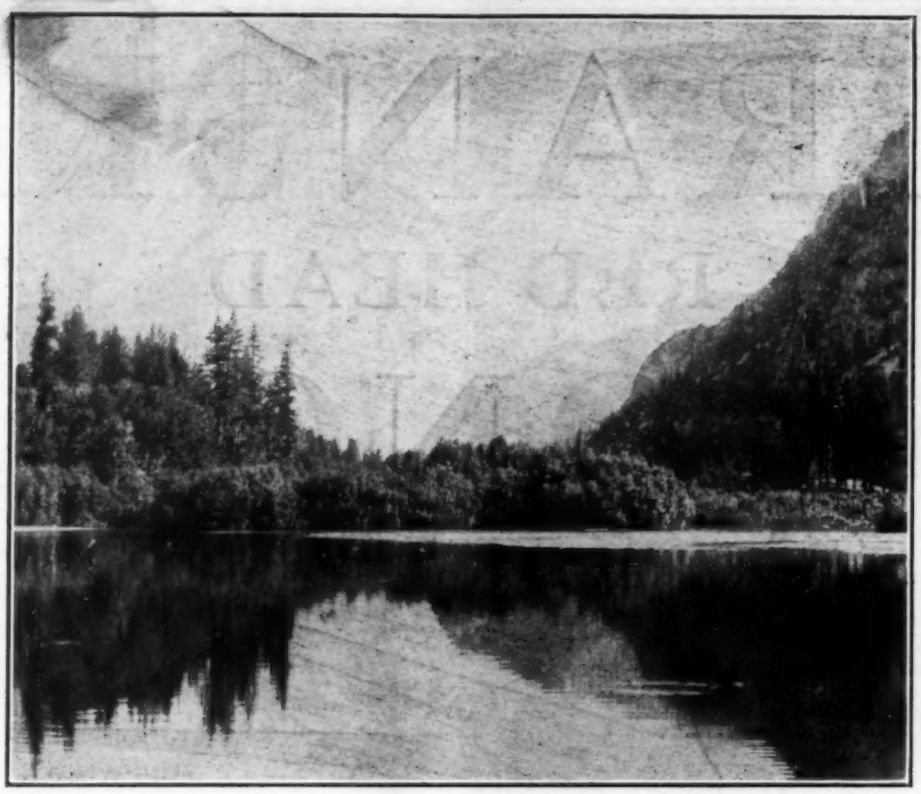

Following oil in New Guinea

THE OIL WEEKLY

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Present Methods of Producing Oil Mean Greatest Economical Recovery

Engineers show in discussion of conservation board that field practice is not wasteful

By Grady Triplett
Staff Representative

Tulsa, Okla., March 2.—If getting the highest yield from an oil sand is desirable, field development methods of American oil producers are not wasteful.

This is the conclusion from opinions expressed by some of the leading petroleum engineers of the United States. Their expressions were given here Saturday night at a forum of the Mid-Continent section of the American Institute of Mining and Metallurgical Engineers. The general topic for the meeting was conservation. While several questions were presented, all bearing along lines taken up in the several questionnaires of the Federal Oil Conservation Board, they did not come from the board.

These men gave it as their opinions, based on both theory and practice, that both the close spacing of wells and the intensive drilling of pools are conducive to the highest ultimate yield of an oil bearing formation. Even water encroachment, especially edge water, was credited with being an agency for good in helping to drain an oil sand.

Following is the first question considered:

"What is your opinion as to the number of wells to be drilled to each 10 acres in order to leave remaining the least amount of oil in the sand? That is, would there be more oil left in the sand by drilling one well to 10 acres than by drilling 10 wells to 10 acres?"

After mentioning the recent custom of drilling one well to 10 acres in the deeper fields, W. O. Wilson, chief geologist of the Gypsy Oil Company, brought the question down to the findings of W. W. Coulter in Bureau of Mines bulletin No. 288, by saying:

"There is this striking relation, that the production of a well is simply directly proportional to the space between wells. That is, it is proportional to the square root of the acreage which is allocated to each well.

Spacing of Wells

"To make a concrete example, I have tried to make this plain in the following by assigning certain figures you can take the square root of in your head. Take the problem of 160 acres. We will say a well has been completed upon opening a new pool and the knowledge of the geologists is such that they are able to do what experts are sometimes able to do, namely, 30 days thereafter determine what that well is going to make. We predict the well will produce 40,000 barrels.

"So I took the square root of 16, which is four, and multiplied by a convenient factor. Sixteen acres to the well, 40,000 barrels to the well, would be 2500 barrels per acre.

"If in this drilling campaign we allocate only nine acres to the well we could predict that each would produce 30,000 barrels; that the recovery would be 3333 barrels per acre. Although this is a decrease of 10,000 barrels to each well, it is an increase of over 800 barrels per acre."

This speaker, as well as others, made it clear that consideration of the question from the sole standpoint of ultimate oil produced was not complete. Prices of oil and drilling costs are economic factors to be considered in determining the spacing of wells.

"Given the market price of oil," he continued, "and the cost of each well, there are a certain number of wells that can be drilled that will give th maximum profit for that particular field.

"Certainly you get more oil by drilling one well to an acre than by drilling one well to 10 acres, but would probably go into bankruptcy doing it."

John M. Lovejoy, chairman of the Mid-Continent section of the engineering body and chairman of the meeting, followed with this on the question.

"In this formula that Mr. Wilson mentioned and assuming a recovery of 10,000 barrels to the well, I believe nearly double the number of wells could be drilled and get an extra dollar back for every dollar put into development. This is on the basis of 10,000 barrels to the acre and $2 a barrel for crude. Of course, the price factor of the crude is controlling and also the cost of the well, but I think we would all do well to look into this subject and in a field that is being developed see whether we are making the well spacing correct.

Example of Close Spacing

A concrete instance of higher recovery through closer well spacing was outlined by J. O. Lewis of Dunn & Lewis, of Tulsa, who said:

"A recent experience I had in examining some properties in Archer County, Texas, might be of interest to this meeting. The common spacing is two and one-half acres to three acres to the well and sand conditions are uniform. The particular property I was examining indicated a recovery of about 5000 barrels to the acre with a spacing of a little more than six acres to the well, whereas the recovery from other properties in the district was seven to ten thousand barrels to the acre, with the spacing of two and one-half to three acres to the well.

"As the recovery per acre was high, the oil of good quality and high price, and the wells of moderate cost, the spacing of six acres to the well was too much, for by drilling twice as many wells two or three thousand barrels per acre more could be obtained."

The next question was on rapid drilling of pools.

Rapid Drilling

"Do you think the percentage of oil left in the sand where a field is drilled rapidly with a great number of wells completed at approximately the same time is greater than where a field is developed slowly by completing only a few wells at the time?"

Answers to this brought opinions and experiences that slow development makes for low recovery. Mr. Lewis spoke again on this, saying:

"It has been found that where the exterior wells on a lease have been drilled and the operators have sat down to enjoy some profits after protecting the lease, that when they later started to drill the interior locations, although the sand may still be thoroughly saturated and the wells have good flush production for a few days, they quickly slump off and in a short time are producing no more than the older wells."

Mr. Lewis made the point that this applied principally in fields where gas is the expelling agent. Chairman Lovejoy, in seeking further opinions, brought the case of Wortham before the meeting.

"Let us use Wortham as an example. In your opinion would the ultimate recovery of Wortham have been greater had it been drilled location by location, had its development taken six months or a year instead of about 30 days?

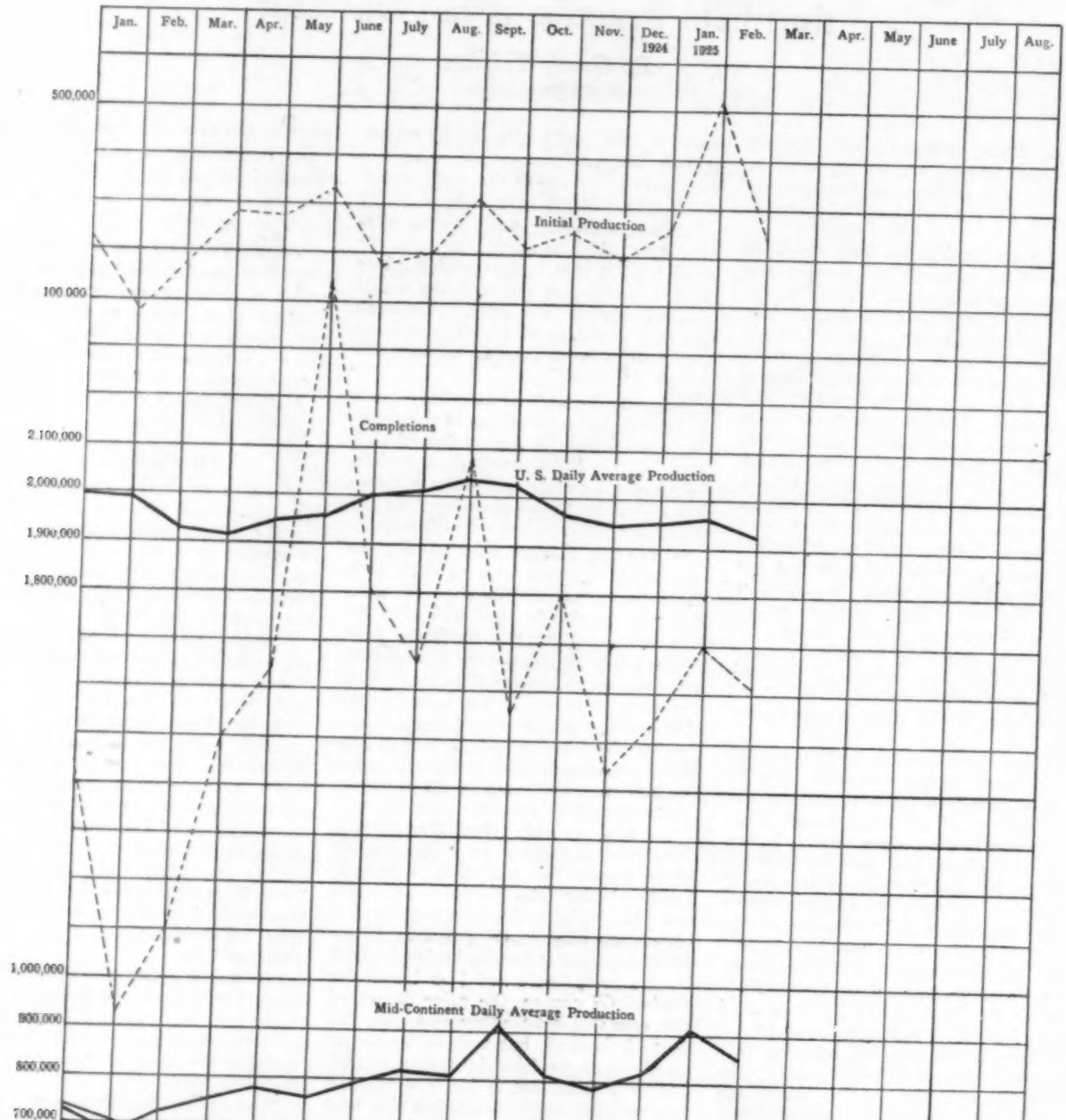
Fields Compared

"As against that field you could take Burbank, which has been developed more slowly. Would Burbank have produced more oil had it been a commercial lease instead of departmental and if the field had been developed a mile or two miles at a jump and all intervening locations made?

"In my opinion Burbank ultimately

(Continued on page 62.)

U. S. PRODUCTION AND FIELD STATISTICS



U. S. Production Slumps in February

Higher crude prices have not had time to make material change in field activity

By A. R. McTee
Staff Representative

HIGH crude prices during February failed to stimulate field work sufficiently to hold the daily average output of crude oil to that of January, with the result that total production for the United States in February was off 1,132,870 barrels. This allows for the fact that January had three more days than February, and an extra three days production is added to the total for the past month, in order to obtain the true rate of decrease.

For the 28 day period, crude production reached a total of 54,082,539 barrels. Daily average production at the close of February was about 1,932,585 barrels. This multiplied by three gives 5,807,755 barrels, which added to the February total, gives 59,890,294 barrels, and when this total is subtracted from that of January which is 61,023,171 barrels, the actual decrease for the month is given.

Field Work Slow

Drilling statistics indicate that there was a slowing up in field work in practically every oil producing state. The total number of wells completed was below that of January by 77: producers were 17 less and there were 72 less gas wells. Failures increased over January by 12 wells, but there was a drop of 275,015 barrels in initial production.

Texas was an exception to the above statement: but notwithstanding the increase in completions reported from that state, the total slump in Texas production was largely responsible for the decline in the United States total. The Wortham field was the paradox: more producers were brought in at Wortham during February than in January, but their initial output was extremely low when compaerd with earlier completions. This resulted in a total decrease in the Wortham output of 1,376,430 barrels. Toward the close of the month there was a slight upward trend in the output of the field, due to cleaning out wells drilled early in January, but there is not enough drilling in sight to sustain production. In fact there are few locations yet to be drilled. With the exception of the Humble Oil & Refining Company and the Boyd Oil Company, operators at Wortham have about completed their development plans, and the balance of the drilling will be confined to inside wells and getting the most out of those already put on the beam.

In other North Texas fields, principally in Wichita, Archer, Young and Wilbarger Counties, drilling was strengthened. An 1100 barrel well in Wheeler County is believed to be the forerunner of a new field but the isolation of this well will hold back development and considerable time will probably lapse before anything definite can be determined as to the potentialities of the district.

The Big Lake district is holding back awaiting pipe-line facilities and intensive drilling will probably not begin before the middle of the summer.

Luling, Mirando, and the group of fields below San Antonio showed little change over January.

In the Gulf Coast the adding of three producers to the South Liberty field was the major event. This field now has a production approaching 5000 barrels from four producers. Other completions are expected in momentarily, and the output of the field may be doubled before this is printed.

California Off

California production declined at the rate of about 7000 barrels per day for February, but there was no difference in field work and initial production was up about 2000 barrels. Rosecrans and Torrance led in field work.

Due to the re-conditioning of wells in the Salt Creek, Wyoming field, production for the Mountain States group of fields was boosted 113,700 barrels. In the Salt Creek field, many wells that have been idle for many months have been put on the beam since the completion of a power plant which furnishes ample pumping power. Statistics show only 22 wells completed in the four states of Wyoming, Montana, New Mexico and Colorado, but of this number 16 were producers.

Oklahoma production increased at approximately 2600 barrels per day for the month with the principal gains coming from Tonkawa, Gilcrease-Papoose, and Cromwell. The discovery of a big well in the northern part of the Cromwell pool is considered the most important event from the standpoint of operators since it led to many locations being made immediately, and these are now being drilled.

Kansas activity was centered in the Rainbow Bend field in Cowley County, where substantial increases were shown for the month in both completions and production. Initial production more than doubled itself.

Louisiana and Arkansas show no appreciable changes over January. In Louisiana, the most of the work was confined to the Cotton Valley field and its southern limits are believed to have been proved. Several companies have announced that they will drill a number of wells on inside locations and

(Continued on page 44.)

FEBRUARY U. S. PRODUCTION

Following is the gross estimated production of crude oil in the United States for the month of February as compiled by The OIL WEEKLY:

California	16,726,500
Mountain States	2,450 448
Eastern States	2,947,000
Texas	11,215,727
Oklahoma	13 681,920
Arkansas	2,969,092
Kansas	2,498 768
Louisiana	1,593,084
Totals	54,082,539
January	61 023,171

PAST TWELVE MONTHS

The record for the past twelve months is an interesting study for comparison purposes, the following table giving field statistics for all states in the Union. Figures for Southern California begin in June, 1924, and those for Mountain States begin in November.

Month—	Completions	Producers	Gas wells	Failures	Initial Prod.
Feb., 1924	1,105	798	40	267	183,204
March	1,510	948	211	351	293,772
April	1,634	1,084	187	363	280,160
May	2,431	1,605	273	553	343,531
June	1,808	1,215	193	400	182,750
July	1,637	1,087	168	382	203,875
August	2,041	1,405	196	440	316,713
September	1,503	1,029	152	322	226,716
October	1,788	1,149	221	418	255,820
November	1,436	888	205	343	203,135
December	1 624	979	269	376	257,745
January, 1925	1,704	1,028	262	414	522.901
February	1,627	1,011	190	426	247,886

UNITED STATES FIELD STATISTICS

Following are the completions, showing producers, gas wells, failures and initial production of crude by states for the month of February as compiled by The OIL WEEKLY:

States—	Completions	Producers	Gas Wells	Failures	Initial Prod.
California	72	68	..	4	32,957
Oklahoma	263	158	31	74	85,811
Kansas	72	45	1	26	18,219
Kentucky	101	66	5	30	1,245
Mississippi	..	..	..	..	....
Mountain States	22	16	1	5	3,895
New York	19	19	..	..	45
Ohio	150	80	34	36	893
Pennsylvania	103	80	14	9	286
Tennessee	2	..	1	1	...
W. Virginia	145	42	84	19	333
Louisiana	39	17	6	16	2,740
Illinois	14	8	..	6	270
Indiana	8	4	..	4	95
Arkansas	82	62	2	18	6,035
Texas	535	346	11	178	94,862
Totals	1,627	1,011	190	426	247,886

Wells in new oil district, Russia

Introduction of Rotary Drilling to Baku

Some progress has been made with American methods despite inefficiency of men and material sent over

By V. C. Svimonoff
Petroleum Engineer

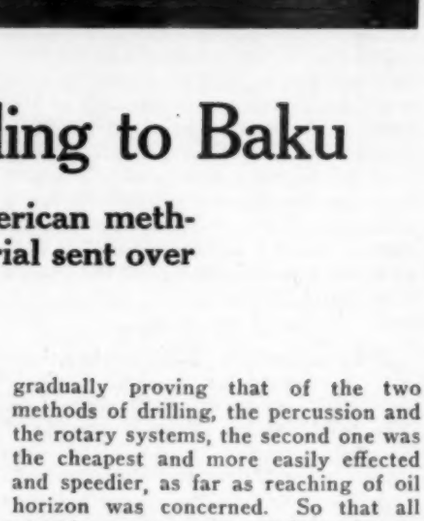
THE newly developed method of drilling oil wells by rotary process was being introduced into the Baku oil fields when one of the largest oil well drilling corporations in the oil industry of the world, the Molot Engineering Company[1] invited the writer of these sketches to take charge of the American department of this large organization in September, 1913, at Sourakhany, and drill wells after the American fashion, much belauded even there.

In some wonderful and truly mysterious way a certain equipment for rotary drilling known in the American oil country as let us say "XYZ stuff" made its appearance in Baku some time before this. It seems that some British concern had acquired the machinery in England and after all kinds of failures with it in Baku sold the rotaries to the Molot Engineering Company. There were no tool joints nor safety elevators in those days in Baku, and the pioneer work of drilling wells by rotaries was attended by all kinds of handicap. In the first place there was that eternal conservatism of oil men who considered their methods of drilling as best and anything different from their usages as irrational and dangerous. The personal equation of imported American drillers engaged by different companies in Baku through the American supply companies, ever so willing to send out all kinds of adventurers into the foreign fields, evidently not realizing the consequences of such practice for their future sales, turned out to be that of doubtful character; in fact, it was a case of "equations with many unknowns." A "roughneck" in Texas, he passed for a driller in Russia. A self-made geologist from Beaumont, he could not conceive of a difference in formations of Sourakhany region from those of Spindle Top. Everything spelled for him the "gumbo" of the only well that he ever had drilled in his life, or had seen drilled. The labor employed was so poor and inadequate for the intelligent way of running the rotaries that at times the whole undertaking seemed to be hopeless.

Towards the end of the year 1914 it became clear that the war added another and the most influential factor, impeding the progress of the rotary system in the Russian oil fields, for new equipment could not be obtained from America and there was a considerable shortage of the materials to be converted into the drilling tools in the local shops.

Strange as it seems these circumstances were on the other hand of some benefit, forcing the Russian engineers to improve the unsatisfactory conditions in the oil fields by pushing the rotaries, which by this time were gradually proving that of the two methods of drilling, the percussion and the rotary systems, the second one was the cheapest and more easily effected and speedier, as far as reaching of oil horizon was concerned. So that all attention was concentrated on the rotaries, and all the materials available secured for the rotary operations.

The Molot Company was fortunate in securing the services of a good American driller, Mr. Frank Micheau, of Corsicana, Texas, and to the latter



A flowing well in Russia

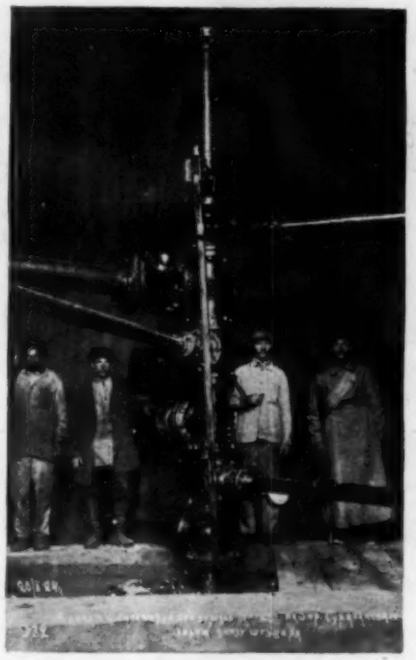
[1]This particular concern euphoniously called in Russian "Tovarischestvo Choogoonno-Liteinikh i Mechanicheskih Zavodov MOLOT," which means in plain English Molot Foundry and Machine Shops, for short Molot Eng. Co., had at the time 120 percussion outfits to drill wells with and eight modern plants to manufacture all kinds of oil well supplies and machinery.

gentleman the Russian oil industry owes the gratitude for the proper introduction of the elements of rotary drilling into the fields. And when, in 1917, the writer assumed the management of all the branches of the Molot Company in Baku, the American department had already been brought to a very efficient standing and there were twenty native rotary drillers with a corresponding number of assistant drillers and crews. It boasted of having some sixteen rotary outfits and a wonderful selection of fishing tools, there being quite a shortage of fishing tools in general.

As a matter of fact the situation was no less revolutionary with regard to the methods of drilling oil wells than the political state of affairs in the country at that time. The board of directors at St. Petersburg had already decided to abandon the old Russian method, the iron pole tool system, and standardize on the rotaries. This decision, in view of the large number of the Russian drilling outfits and an enormous aggregate of paraphernalia thereto appertaining, was truly revolutionary, for it meant scrapping of machinery worth several million roubles in gold. And yet the showing of the profits derived from the application of the rotaries was such that the investors in the enterprise felt fully justified in passing the decision. Suffice it to state that whereas it took from two to three years to drill a well by the Russian method, it took only six months to drill by the rotary method, the principal delays in the last method being due to the cementing jobs, which in judgment of the conservative Russian engineers required plenty of time—three weeks at a time!

The impetus thus given the rotary system by the private enterprise was eventually smothered by the complete change of the political conditions of the country and I understand very little progress was made in the application of rotaries under the government ownership of the drilling organizations, but even at that, judging by the interest shown during the sojourn in this country of the Russian government's oil trust in the rotary equipment, it is evident that the further progress of the Russian oil industry is inseparably connected with the rotary system.

The Barnsdall International Company's experiment in Baku with the local government's oil wells, as far as the engineering end is concerned, does not present anything new. The rotary system had been tried and very successfully before. It is true that in 1923, the year in which this last named corporation worked in Baku, the rotary machinery was far better than the machinery employed in the period between 1913 and 1919, for at that time the old models were being used and the country being practically cut off and isolated, no technical news reached the Baku technical circles. But the results of the work of these models

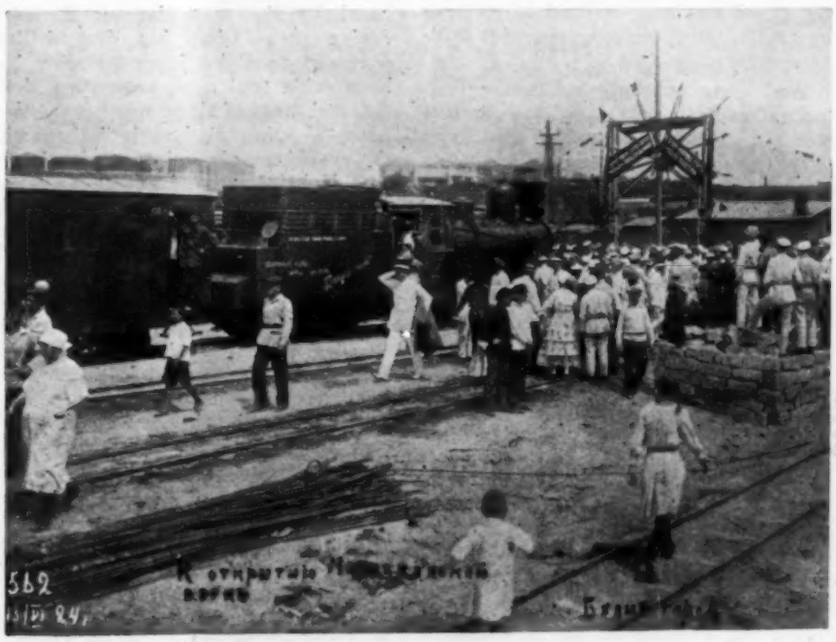


Equipment on a flowing well in Russia. Notice armed guard

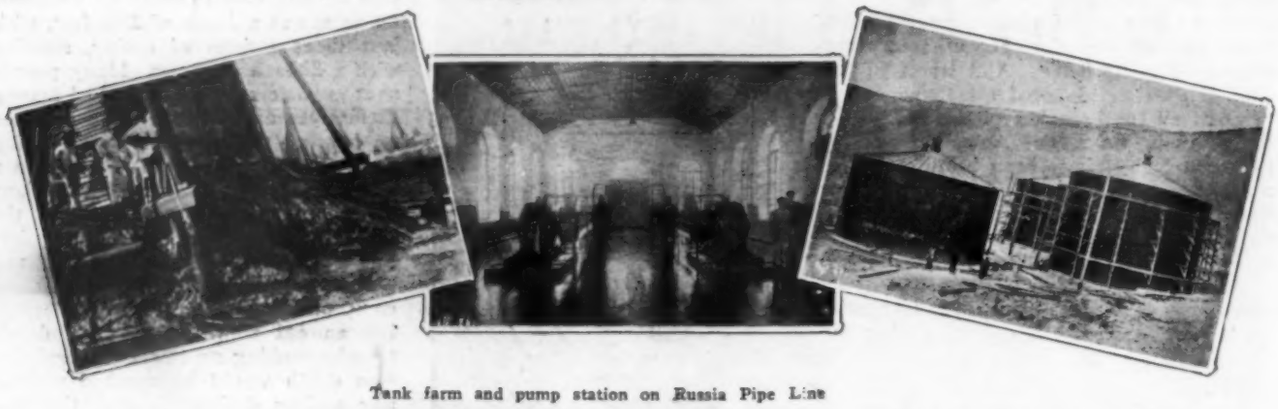
were very satisfactory and a better understanding was reached in the end between the reluctant and conservative Russian engineers on one side and the pioneers of the rotaries on the other side.

The principal point of differences in the beginning was the size of the initial diameter of the hole. The Russians had been accustomed to gigantic diameters, 44 inches being the first diameter they were starting wells with at BiBi-Eibat, for instance, in the Russian system of drilling. And final casings in many instances used to be as large as 14 to 18 inches No one in those days in Baku believed that it was possible and easy to reach oil horizons, let us say at a depth of 2500 feet, with just three strings of casing, starting with a 22-inch diameter. Many prominent engineers in Baku laughed among themselves and sometimes to my face on hearing the accounts I was giving them of the achievements I had been a witness of in Texas and Louisiana fields, at that time prominent in the oil well drilling glories of the Union. So that after much discussion and wrangling we would come to some compromise agreement, that of deepening an old well at a certain depth, thereby making sure that the exploitation depth would be reached without any serious difficulty. And thus the first significant work performed by rotaries in Baku was that of deepening old holes.

And it was in this first and comparatively light work that the advantages of the rotary system were demonstrated to the doubting Thomases of the Russian engineering world. All in spite of the numerous fishing jobs we would encounter in our drilling operations. For the drillers were not up to the standard required, the tools of the "dump them for export" kind. And then there were no tool joints; on the other hand such excellent rock bits as are found in abundance all over the oil country in America made their appearance just a short time before the war and could not be secured later. The Molot Company manufactured their own rock bits, American patents having no jurisdiction in Russia. But the secret of hardening process not being known the bits produced would drag flat in no time, so that very little progress would be made when drilling through hard formations, just a few inches per day. Another great difficulty was to be found in the fact that the drill pipe available for work was



Opening of the new railroad in the oil fields district, Russia



Tank farm and pump station on Russia Pipe Line

of the antedeluvian type, with regular ends (not upset) and very fine thread. So that when fishing jobs occurred, and they did occur as a result of the difficulties enumerated, very slow progress could be made in cleaning the particular hole.

Gradually, with the steady training given the native drillers who in most cases had mastered the Russian percussion method of drilling before tackling the rotary method, and with a certain adaptation of local usages by American drillers and of the foreign practices by the local students, a modified stage was reached which enabled the concern to drill wells by rotaries in a successful manner. Tool joints commenced to come out of the shops of the company, and they proved to be very good. In place of drill pipe for pulling operations, while fishing, the Russian fishing iron rods, 3½ inches in diameter, were being used with fine results, a series of effective fishing tools were developed and above all the drill pipe employed had the ends upset, with conical thread (taper), while the men on the floor learned the principles of the new method of drilling and intelligently co-operated with drillers.

And when not long before the February revolution of 1917, a well, if I am not mistaken No. 45 of the Baku Naphtha Company, at Sourakhani, was successfully drilled to a depth of 2600 feet in 37 working days, the Russians' prejudice was overcome and contracts to drill wells by the rotary method poured in faster than they could be properly taken care of.

It sounds funny, to say it mildly, that one boasts of such achievements in drilling, for indeed there was nothing remarkable for the American oil men in this record, and many a well in this country was drilled to a greater depth in shorter time, but to the Baku spectators this really was a significant and far reaching record.

Another important, and I may say very prominent corporation well known the world over, Nobel Brothers, had been in its turn interested in the rotary system of drilling, and accordingly sent to this country a number of their engineers to study the system. But unfortunately being producers, not contractors, they, like so many prominent oil producers in the States, completely failed to achieve any appreciable results in working out a process of introducing a new technical method in drilling operations. Nobel Brothers spent hundreds of thousands of roubles (pre-war) on their really very good equipment. They had the very best machinery obtainable, manufactured by the most famous Pennsylvanian corporation, but first drillers sent out to Baku from America had been cable tool men, not rotary drillers, and most of them spent more time with "sleeping dictionaries" than with the machines given into their charge. The Nobel Brothers' efforts all failed. And at the time I am writing of the Molot organization was the only serious pioneer of the rotary system in Baku, of considerable magnitude and importance. Of minor importance as pioneers in these operations were the Russian Naphtha Company and the Baku-Tiflis Company. Both concerns have succeeded in drilling a number of wells by rotaries, but not as effectively and economically as was the case with the Molot Company.[2]

Here is a case of one of the first experiments with the rotary "specialists" ever brought to Russia. An enterprising native miller who had made millions on cornering wheat and rice in the Caucasus, decided one day to go into the oil business. Some one suggested to him to get the very best in the oil well drilling machinery, and the word "American" being synonymous with the word "best", the amateur oil man wrote for the rotaries and a man to run them. In course of time the machinery and the man arrived and the really very energetic miller commenced to wildcat on one of his numerous leases in the vicinity of Baku. Being a self-made man, the miller tried his best to avail himself of the advantages to learn all about the rotary drilling, poking his nose into everything that to his limited conception of things seemed very important. Imagine his indignation when he discovered that the "foreign curiosity" imported into his employ would not care to tell him anything trustworthy and correct in explanation of his work. In fact, I understand the driller one fine day gave orders to his workmen to keep everybody away from the rig, the owner of the well included. And, strange as it seems, the owner of the well had to keep quiet and make peace with the driller, for the latter was in his eyes a kind of a magician, who could, if he so desired, ruin or solidify the owner's prospects. The driller himself thought, in his ignorance of the ways of advancement in oil industry, that by keeping to himself the awful mystery of rotary drilling he could for a longer time command good salary and be a kind of "none-better" among the local followers of improved methods of drilling. But having no one but himself to rely on and in the absence of a valuable geological advice, the first well drilled turned out dry and so did the second one and not long afterwards the driller lost his job, the machinery and all other paraphernalia passing into the hands of other people, the miller himself swearing off interest in any oil game.[3]

Another driller, likewise imported from the U. S. A., was put to work at Sourakhany. The local engineers, who as a rule combine functions of managerial nature with those of technical nature, treated him in the best possible way, all kinds of courtesies being shown him, and he was given to understand that he was considered on a par with the executives of the com-

(Continued on page 91.)

[2] I am taking the liberty of advising American supply houses of this: Do not recommend drillers to foreign companies unless you are absolutely certain that they can deliver the goods. I have just returned from a prolonged travel in the Near East and the universal complaint of oil men I met was to the effect that "the boys sent here from U. S. A. did not make good; they were either drink fiends or trouble makers and ignorant."

[3] The keen mind of the miller is illustrated by the following: When natives assumed ministerial functions in the newly created Republic of Azerbaidjan with Baku as metropolis, he sarcastically exclaimed: "For 35 years I had been looking for a native bookkeeper to work in my offices and failed to find one and now these '———,' ignorant that they are, dare call themselves finance minister and secretary of state." For this brave utterance he was put in jail, eventually released and before the advent of the Soviets escaped to Germany as a refugee.

Oil Has Been Investigated Dozen Times

Dow points out before refiners meeting that so far investigators have found nothing wrong

By Grady Triplett
Staff Representative

Kansas City, Mo., March 3.—Although the petroleum industry has been the subject of twelve governmental investigations in the past eight years, resolutions now pending in congress, if adopted will bring still another. This fact was brought out forcibly by Fayette B. Dow, Washington Counsel of the Western Petroleum Refiners Association, whose annual session opened here this morning.

His remarks along this line were; "It should be said to the credit of the oil industry that it has never opposed any investigation for which there appeared to be the slightest necessity. It has taken the position that the public is entitled to know the facts about any important industry, that the oil industry has nothing to conceal, and it has hoped that out of some of these investigations a better knowledge and understanding of the industry's affairs might be gained by the general public.

"Not only has the industry not opposed these investigations but it has repeatedly answered questionnaires of the Federal Trade Commission which it could have successfully resisted in the courts. The coal and steel industries refused to answer similar questionnaires and the courts have permanently enjoined the Federal Trade Commission from requiring them to be answered. This attitude of the oil industry toward Governmental investigations has received recognition from some of the authorities at Washington but many members of congress apparently remain uninformed as to the number of these investigations, their scope, or what they show. Perhaps even the industry itself will be surprised when it is recalled that there have been twelve completed investigations in the last eight years, all dealing with phases of major importance." Here Mr. Dow listed the different investigations, nine of them by the Federal Trade Commission, two by the Senate and one by the House of Representatives. Then he continued:

"In those investigations, agents of the government have made searching inquiries for violations of the law. Aside from the pending suits involving cracking process patents and the leasing of naval reserves, nothing has been developed in any investigations to indicate violation of the law. On the contrary both the Department of Justice and the Federal Trade Commission are in position to inform Congress, and the public if they would, that they have found no monopoly in the oil industry, no combination in restraint of trade, no conspiracy in violation of the anti-trust laws, but that on the contrary, there exists in the producing, refining and distributing branches of the industry, the keenest kind of competition; that over production in the recent years has brought extremely low prices to the public and disastrous financial consequences to many economically operated companies.

"With all of this information at hand and available, we are confronted with the demands for new investigations. Of course the moving cause was the recent advance in gasoline prices. It is easy to say, as some have said, that the Congressional mind remains calm when the wheat and cotton markets advance, but is filled with instantaneous indignation when gasoline prices move upward. Politics plays its parts in this situation undoubtedly. But we must not deceive ourselves by thinking that it is all politics. The wheat farmer is known up and down the land, and the cotton planter needs are fairly well understood, also, but who understands oil?"

Mr. Dow then went into details to show how costs and prices work in the oil industry as they work in other industries. His address followed the annual message of the president, F. A. Pielsticker, of Eldorado, Kansas, vice president of the Skelly Oil Company. These, with the session on credit and sales completed the afternoon of the first day. The morning was given over to registration and a meeting of traffic managers.

Investigation Inspired Cracking Patent Suits

Washington, D. C., Feb. 27.—A resolution, calling upon the president, "if not incompatible with the public interest," to transmit to the senate a copy of the report of the Federal Trade Commission on its investigation in 1923 and 1924 of the price of crude oil, gasoline and other petroleum products, introduced by Senator Trammel of Florida, has been adopted by the senate.

The senator's resolution originally called directly upon the Federal Trade Commission for this report, but was amended by Senator Moses of New Hampshire, who pointed out that the report was being used by the Department of Justice in certain prosecutions and an unqualified demand for it might result detrimentally against that work.

The resolution was adopted by the senate following discussions of recent increases in the price of gasoline, said to amount in some states to as much as 8 cents per gallon. Similar resolutions were introduced in the house, but the senate measure did not need the concurrence of the house and became effective immediately upon passage.

During the debate on the resolution Senator Harreld of Oklahoma had read a letter received by him from Acting Attorney General A. T. Seymour regarding the department's oil activities, in which it was explained that the Department of Justice in the spring of 1923, following receipt of complaints that the price of gasoline was being fixed by agreement, began an extensive investigation of conditions in the industry. Later the department broadened the scope of its investigation to include a careful examination of the several companies of the Standard group to ascertain whether there had been any violation of the dissolution decree.

"This investigation," Mr. Seymour advised Senator Herreld, "disclosed that the Standard Oil Company of Indiana, the Standard Oil Company of New Jersey, The Texas Company and the Gasoline Products Company had interchanged licenses based on patents for 'cracking' gasoline containing numerous conditions and covenants in restraint of trade and commerce in gasoline. A suit in equity was filed against these companies and their licensees charging that the agreements are violative of the anti-trust act.

"During the summer of 1924 the department made an investigation of certain trade associations in the oil industry. This investigation did not disclose evidence warranting the institution of proceedings, although one association voluntarily abandoned the statistical service maintained by it during the inquiry."

Trade Commission Inspired President's Act

Report of investigation transmitted to senate in connection with gasoline price inquiry

By Clarence L. Linz
Staff Representative

Washington, Feb. 28.—The Standard Oil Company of Indiana and the Prairie Oil and Gas Company, and other Standard companies during 1923 and 1924 exercised a very decided price leadership, according to data which it secured, the Federal Trade Commission declared in a report on the increase in gasoline prices in 1924, which it submitted to the president, who in turn transmitted the report to the senate in response to the terms of the Trammell resolution. Senator Park Trammell (Dem.), of Florida, sought investigation of the recent increases in the price of gasoline, but this wide move was vigorously opposed in the senate and his request was limited to calling for the report, which reached the senate today.

This leadership, the report continued, was responsible for the failure of both crude and gasoline prices to respond to the conditions of excess supply prevailing in the Mid-Continent field in the summer of 1923. Tank wagon prices were maintained at a high level throughout June, July and the early part of August, 1923, although production of crude and gasoline was increasing and stocks were mounting rapidly. Similarly the advance in gasoline prices in December, 1923, and January and February, 1924, was affected in spite of continued increases in gasoline production and stocks.

"Although the commission did not discover evidence of any illegal co-operation among the several Standard companies," the report declared, " the activities of the Standard Oil Company (Indiana) and the Prairie Oil and Gas Company in maintaining gasoline and crude prices, respectively, at the high levels prevailing just prior to August 7, 1923, and in increasing their prices in December, 1923, and January, 1924, in spite of excessive supplies, may be criticized as evidence of the price control which these two Standard companies exercise in their respective areas.

Disregard Supply and Demand

"That the Standard companies time the price changes which they control in such a manner as best to serve their own financial interests as regards their stocks on hand is suggested by the greater rates of income which these companies earned as compared with independent companies throughout 1922 and 1923 and by the indications of very substantial profits earned by Standard companies in the first quarter of 1924.

"While Standard companies disregarded supply-and-demand conditions in the exercise of their undisputed power of price control in 1923 and the early months of 1924, there is no evidence that through accumulation of stocks of crude oil or gasoline they were guilty of an attempt to control the exisiting supply by a 'corner' of the market. Data on production and stocks of crude oil and gasoline which were obtained by the commission indicated no increases in the proportions controlled by Standard companies and no disproportionate accumulation by these companies during the period of declining prices in the last half of 1923.

"In other words, the responsibility which must be placed upon members of the Standard group for the gasoline price history of 1923 and the early months of 1924 arises, not so much from an increase in their influence over the facilities and commodities of the industry, as from the large degree of control exercised at all times by the larger of these companies, individually, over their respective areas of operation, and their evident harmonious action when such action becomes necessary in their own interests."

"26 Broadway" Myth

Referring to frequent charges and a widespread belief that the officials of the different companies took their orders from the main office of the principal Standard interests at "26 Broadway," New York, the report adds that "While Standard companies have always vigorously denied the existence of any collusion with each other, they observe a certain comity among themselves and their operations generally display a harmony and consistency which would not prevail under conditions of active competition. This is due to the fact that the decree of dissolution did not eliminate the community ownership of the stockholders of the company, and particularly of a small group of very wealthy shareholders who had actively directed the old combination. In recent years there have been, it is true, indications of a lessening of co-operation among the different members of the Standard Oil group."

"The power of the Standard group can not be measured merely by the percentage of business which it controlls because the Standard capitalists and their close business associates represent a vastly greater financial influence affecting the control of capital and credit," the report continued. "It is the power to control which is antagonistic to freedom of competitive effort. This power is not measured in percentages of capital stock control or of production. These measurements are artificial. The power to confer or withhold benefit is inimical not as the result varies, but because the existence of the power is opposed to free institutions."

The data accumulated by the Federal Trade Commission is said by it to show the following:

(1) That in the great region in which the Standard Oil Company (Indiana) operates, independent marketers recognize the Standard Oil Company as the leader in price movements; (2) that these independents endeavor to keep themselves informed as to Standard price changes in order to remain in line with them; (3) that through exchange of information and informal conference with local representatives of the Standard Oil Company (Indiana) the independent companies attempt to maintain uniform prices; (4) that independent marketers, working through their various associations, endeavor to prevent price cutting; (5) that the price levels sought to be maintained are those established by the Standard Oil Company (Indiana), and (6) that independent marketers generally recognize the futility of trying to sell at prices other than those established by the Standard Oil Company (Indiana).

The following recommendations are made by the commission with the statement that most of them are substantially repetitions of those submitted in connection with previous inquiries.

Recommendations

1. Application of the principle of the so-called "commodities clause" to pipe lines, as well as railroads, so as to prevent a pipe line company from being connected directly or indirectly, by holding company or otherwise, with a company which ships oil over its pipe line.

2. Lower pipe line transportation rates and the reduction of minimum shipment requirements from the prevailing rule of 100,000 barrels per shipment to a basis which will be reasonable for the small shipper.

3. Prohibition, by federal legislation, of common stock ownership or control in corporations which have been members of a combination dissolved under the Sherman law.

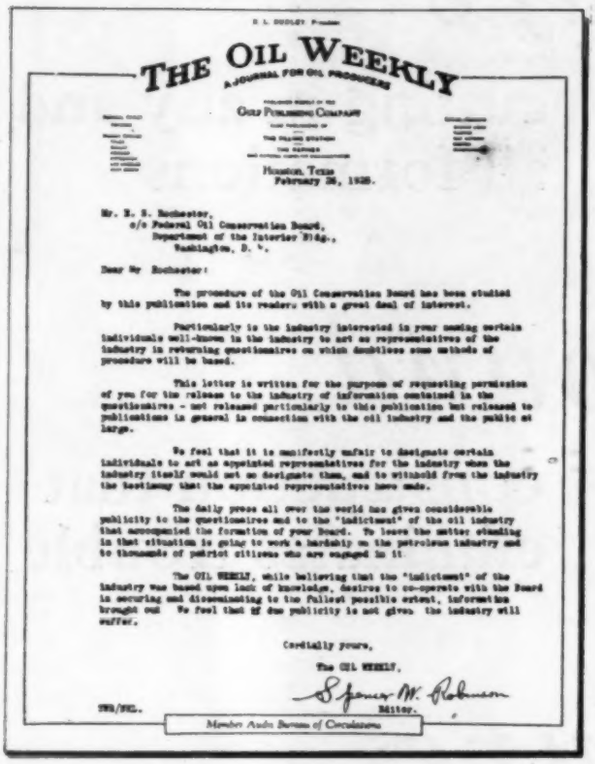
4. Examination by the Department of Justice, in connection with its cur-

(Continued on page 34.)

Price Investigation Started Waste Charge

Industry is entitled to publication of data given in answers to board's questionnaires

PUBLICATION of the report of the Federal Trade Commission to the president and in turn transmitted to the senate, reveals that the move of the president in forming the Oil Conservation Board must have been inspired, at least in part, by the allegation of the trade commission's investigators with regard to waste in the production of oil. That the investigation made by the trade commission was sufficient to justify such allegation is apparently questioned by the president as evidenced by his action in inaugurating further investigation. However, he seems to have been more impressed by this side statement of the commission than with the facts relating to price control with which the commission was primarily concerned when its investigation was ordered.



THE OIL WEEKLY
A JOURNAL FOR OIL PRODUCERS

GULF PUBLISHING COMPANY

Houston, Texas
February 28, 1929.

Mr. H. S. Rochester,
c/o Federal Oil Conservation Board,
Department of the Interior Bldg.,
Washington, D. C.

Dear Mr Rochester:

The procedure of the Oil Conservation Board has been studied by this publication and its readers with a great deal of interest.

Particularly to the industry interested in your sending certain individuals well-known in the industry to act as representatives of the industry in returning questionnaires on which doubtless some methods of procedure will be based.

This letter is written for the purpose of requesting permission of you for the release to the industry of information contained in the questionnaires - not released particularly to this publication but released to publications in general in connection with the oil industry and the public at large.

We feel that it is manifestly unfair to designate certain individuals to act as appointed representatives for the industry when the industry itself would not so designate them, and to withhold from the industry the testimony that the appointed representatives have made.

The daily press all over the world has given considerable publicity to the questionaires and to the "indictment" of the oil industry that accompanied the formation of your Board. To leave the matter standing in that situation is going to work a hardship on the petroleum industry and to thousands of patriot citizens who are engaged in it.

The OIL WEEKLY, while believing that the "indictment" of the industry was based upon lack of knowledge, desires to co-operate with the Board in securing and disseminating to the fullest possible extent, information brought out. We feel that if due publicity is not given the industry will suffer.

Cordially yours,

The OIL WEEKLY,

Spencer W. Robinson
Editor.

SWR/WG.

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One point which the government and its agents have apparently overlooked is that the oil industry is quite definitely divided into three departments, having to do with the producing, refining and marketing of petroleum. Each branch is of sufficient magnitude to take care of itself, and the branches are no less distinct because certain unit companies are engaged in all three branches. It so happens that not one company so engaged in all three departments is sufficient unto itself. Either they do not produce enough for their own requirements or they do produce and refine more than can be sold through their own marketing facilities.

But it now appears that the producing branch of the oil industry is to be made to bear the brunt of the alleged sins of the marketing end, committed, if at all, several months ago.

It will be recalled that the investigation of gasoline prices back in 1923 was attended by much political thunder. The investigation covered many weeks and was no doubt thorough. The United States department of justice and the attorneys general of a number of states were interested. It follows that if the prices of crude petroleum and products were falsely held at high levels at that time in violation of the law of supply and demand, the fact that court prosecutions have not been instituted would indicate that at least the industry has been so astute with its manipulations that it has stayed within the statutes. No more than that can be asked of any citizen by the government.

Star Chamber Proceedings

The regularly constituted departments of the government having failed in arriving at a solution of a problem which was greatly magnified in both the official and public minds through political harangue, the president's Oil Conservation Board appears as a star chamber body which proposes to inflict upon the producing branch of the oil industry some yet unrevealed restraint and regulation. This is punishment, as it were, for sins alleged and not proven to have been committed by an entirely different branch of the industry.

The OIL WEEKLY believes, and we believe that most of our readers in the industry will agree, that the indictment of wastes put forward by the Oil Conservation Board is entitled to be answered with as much publicity and through the same channels, as was given the original indictment and the subsequent allegations of flagrant waste contained in the several questionnaires sent out by the board. In furtherance of this idea the letter herewith produced has been written. Not sufficient time has elapsed since this letter was written for reply to have been received.

But it is certainly to be hoped that the information gathered by the board will be given to the industry and to the public without awaiting request for same by action of the senate in some future frenzied investigation of the price of gasoline.

That the board will soon be in position to make public the results of its investigation, should it so elect, is shown in the following dispatch from our staff correspondent in Washington:

"Within the next ten days or two weeks the Federal Oil Conservation Board will be ready to begin the second phase of its work, that of digesting the replies to its series of questionnaires sent out to various branches of the oil industry. Most of these letters now have gone out, and in response the leading members of each branch of the industry have indicated their view on the situation and made suggestions for reducing waste and settling the many problems which the board is to consider.

"Each of the letters which have been sent out by the board calls for data on a separate field of investigation. The responses to each letter will be considered separately so that ten fundamental principles can be developed as evidencing the viewpoint of the industry. It will be difficult, it has been indicated, to arrive at results unanimously approved by each branch of the industry, as the replies coming to Washington indicate that even the leading minds of the oil industry are divided as to just what the situation is and just what should be done. There is by no means a unanimity of thought on any subject, not even as to the necessity for the board.

"While awaiting replies to its questionnaires, the board has at work a staff of statisticians who are gathering, compiling and digesting the data which the various branches of the government have accumulated over a period of years, which will in some measure act as a check upon the replies to the questionnaires. The government's data consists chiefly of actual figures of production, exports, refinery output, etc., as well as the observations made from time to time by experts engaged in various investigations.

"The third phase of the board's

Safe

cutting in any and all formations

Sound

construction that eliminates trouble

Sure

speed and lower drilling costs

—These are essentials of the REED ROLLER BIT

Reed Roller

Hous

New York

A new folder fully descriptive of this fast rock cutting tool is yours on request. Write for it today.

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work, which will not be undertaken until all of the informaiton which can be gathered has been put into a form easily to be digested, will be that of public hearings at which the views of the industry and the findings of the government can be compared and a joint program developed. It is not likely, however, that the board will be in a position to open these hearings for two or three months, as there is a tremendous mass of data, naturally, which must first be worked.

"Following the hearings and the reaching of an agreement as to the program to be followed, the board will prepare a report for presentation to President Coolidge, embodying a national conservation policy. On this report will be based any legislation which it may be found desirable to seek in the next congress."

Trade Commission Inspired President's Act

(Continued from page 30.)

rent inquiry into the results of the Standard Oil dissolution decree, of the present organization and activities of the large integrated members of the Standard Oil group.

5. Consideration by congress of the advisability of some restriction upon the exportation of crude petroleum and its products, in view of the rapid depletion of the petroleum resources of the country essential to national defense.

(Board's Inspiration?)

6. Study of exisiting wasteful methods of drilling for oil, with a view to ascertaining what remedies may be possible, through state legislation or otherwise, and study of more economical methods of utilizing petroleum products and the availability of substitutes.

7. Legislation for collecting and reporting currently facts regarding industrial and commercial conditions by a federal agency possessing adequate powers for obtaining and verifying reports.

8. The establishment of consumer's co-operative gasoline supply organizations in order to save, if possible, a part of the wide margins now frequently prevailing between independent refinery prices and service station prices, and thereby, also, to encourage the competition of the independent refiner who is often unable to develop an extensive distributing organization.

"That there has already been taken from the earth a large part of the total petroleum deposits of this country is generally agreed upon by geologists, who predict, moreover, an early exhaustion of this important national resource if the present enormous rate of consumption is continued," the report says. "While large new oil reserves probably will be discovered and great economies in the consumption of motor fuels may be expected through improvement in engineering methods, the question of conserving this national resource is one of vital public interest.

Alleges Waste

"There is undoubtedly a large economic waste in the production of oil in many localities by reason of the excessive number of producers, who race with each other in drilling wells to get out the oil first. Such producers lose considerable quantities later by lack of adequate storage facilities and inefficient methods of exploitation.

"The buying of crude oil, with the almost autocratic influence in dictating prices generally exercised by some particular large Standard Oil company in each great field of the country, is an abnormal condition, which appears as a survival in part of the monopolistic regime which prevailed before the decree dissolving the Standard Oil combination. This situation seems to depend partly on the great resources and extensive operation of certain individual members of the former trust further fortified by advantageous relations with each other, particularly in the transportation and market outlets for oil. In this connection their relations with the numerous Standard pipe lines are perhaps the more important. The small crude oil producer or purchaser can not ordinarily use these pipe lines which by law are made common carriers, because the regulations of the pipe line companies have (for most part points of delivery in the East) unjustifiably established 100,000 barrels as the minimum quantity which will be accepted for shipment."

Producer Gives Evidence to Refute Charge Industry's Methods Wasteful

A letter has been received from H. A. Wheeler, secretary of the Petro Oil and Gas Company, St. Louis, Mo., commending The OIL WEEKLY for its efforts in getting an expression from oil producers on the alleged wastefulness of production methods, and making some pertinent comments upon the situation. The letter is as follows:

"Your efforts to get the opinion of the oil producers as to the propoganda now being so liberally distributed concerning the oil waste is highly commendable and we take pleasure in giving our views to your three questions, to-wit:

"First. As to the oil industry being more wasteful than other natural resource industries, it certainly is not, if you only allude to the handling of the oil after it reaches the surface. The lead and zinc miners after their ore reaches the concentration mills lose from 15 to 35 per cent of their values in their tailings. The gold and silver miners lose from 10 to 30 per cent, and the copper miners lose 15 to 40 per cent.

"If, however, you allude to the extraction of the oil that is theoretically supposed to exist in the oil sands, we undoubtedly leave a very large percentage underground that we are slowly learning to more efficiently recover by vacuum, compressed air and flooding, and probably later by mining methods. However, in Illinois, which is one of the largest of the coal producing states, from 40 to 50 per cent of the coal is permanently lost by being left as pillars to support the roof.

"The agricultural industry is probably the most wasteful of all, as the average American farmer through lack of using fertilizers and proper cultivation obtains only 25 to 50 per cent of the yields that are secured by the better European farmers.

"Second. The waste of oil that Mr. Doherty is so alarmingly advertising, is gross misrepresentation. His propoganda is based on the excessive speed with which gusher pools are developed and the consequent demoralization and usually heavy losses that result in a rapid. excessive, temporary overproduction. There is practically no wastage of this oil, however, and while it is very discouraging and demoralizing to the profits of the oil industry in the lower prices and excessive number of holes that are usually drilled, it is highly beneficial to the public in the lower prices that frequently result.

"Occasionally an exceptionally rich pool, like Cushing, is developed too rapidly for the tankage available and for a short period there may be some true wastage in the oil from some gushers temporarily getting into the creeks, but this is becoming a rare occurrence and at best is only an insignificant fraction of the output of any gusher pool. Before we had efficient methods for treating b. s. there was a more or less flagrant waste from burning this valuable material, but this is now a bygone that the industry has outgrown.

"Third. Government regulation, judging by its notorious inefficiency in all our past experience, would be disastrous. The average politician has little interest beyond drawing his salary, is usually an utter ignoramus as regards the technology of the industry and the salaries paid by the government are entirely too low to secure the experienced, able experts that are demanded for such a position."

Waite Phillips Company's reclaim depot, warehouse and camp in the Rainbow Bend Field, Cowley County, Kansas. Particular attention is called to the clean appearance of the camp.

Waite Phillips Reclaim Department Profitable

Originally designed to keep leases cleaned up, reclaiming material has become profit maker

By W. Lee Sloan
Staff Representative

THE reclamation plan as conceived by the Waite Phillips Company of Tulsa, Oklahoma, is worthy of the consideration of its many features. Primarily, a plan inaugurated to promote cleanliness around the different properties of the company, it grew into a separate and distinct department which is now saving that organization thousands of dollars each year.

It has only been the past few years that the major companies have turned their attentions to the finer points of efficiency in saving and have formulated certain plans which have ultimately proven profit-makers. With the advent of a new producing territory, the first thought was to produce the oil at any cost with little or no regard for the final cost charged against the lease on which the oil was to be produced.

Although a reclamation depot has been in order for some of the larger users of material, the transportation costs from a central point to the place where the equipment was to be used was the loop-hole which had caused some companies to abandon the idea of trying to reclaim certain materials. The maintenance cost attached to a reclamation depot was another undesirable feature. Both of these obstacles have practically been eliminated by the Waite Phillips Company.

There is a certain day in each week that is "clean up" day for the employes of this company. On this day of the week, the large trucks owned by the company visit all leases in their working territory and pick up all equipment not in use. A list of the material not in use has already been made out by the lease foreman and forwarded to the purchasing department while the transportation department has also been furnished with a list of the material to be picked up. This might possibly be new equipment and it might be what was formerly inventoried as "junk". The material is hauled to the reclamation depot where it is segregated and classed as to its possible future valure.

Instead of having one central reclamation depot, the Waite Phillips Company has three of them. Each is located in different points of the Mid-Continent area where they are accessible to each operating district of the company. It has been found that the operating costs of three small depots are practically the same as the cost attached to one large one.

In an effort to further co-operate with the field men, the company has one traveling representative who makes periodical visits to the different districts. It is not the idea of this inspector to find the men wanting on the recalamation system but to offer certain suggestions which will benefit both the company and the employee.

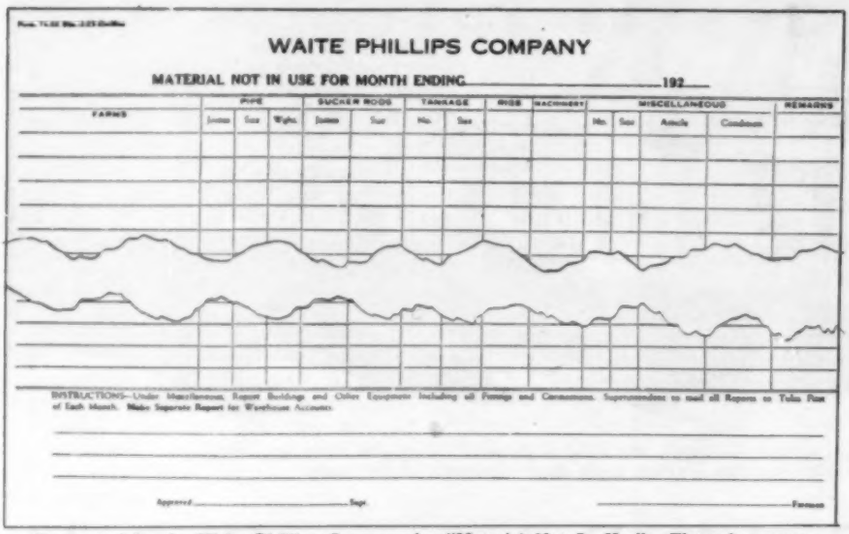
By having three points where materials are repaired the transportation costs are small compared to the cost of shipping used equipment from a distant lease to a central depot and then shipping it back to the district later.

The Waite Phillips Company has a depot at Okmulgee, one in the Rainbow Bend field in Kansas and one at their recently acquired refinery at Wichita, Kansas. With this wide distribution of reclaim depots, the transportation costs are reduced to a minimum.

In reducing the maintenance costs at these reclamation points, the company has found that the regular employees have ample spare time to make the necessary repairs. This eliminated the necessity of special men usually employed especially for this department. In many cases it has been found by companies maintaining a special crew of men for repair work only that many parts have been repaired which were later found to be obsolete equipment. The roustabout who is devoting a part of his time to actual work in the field and part time in the depot is more familiar with the advisability of trying to repair used or "junk" equipment.

The simple and accurate system which has been installed to handle the reclamation accounts enables the purcasing agent, L. C. Camblin, to ascertain at all times the location of this revamped material and also its working value. The form "material not in use" shown in the accompanying illustration is made out by the field foreman and the original copy sent to the purchasing department. On this list the actual condition of the material to be moved from the lease to the reclamation depot is shown. This is done in order to give it a proper and accurate appraisal value.

An appraisal table has been compiled by this company which is the same as has been agreed upon by most of the Mid-Continent operators. By this agreement the operators have no difficulty in arriving at values on material which is used on joint interest



WAITE PHILLIPS COMPANY

MATERIAL NOT IN USE FOR MONTH ENDING _____ 192__

FARMS	PIPE			SUCKER RODS		TANKAGE		RODS	MACHINERY	MISCELLANEOUS				REMARKS
	Joints	Size	Wght.	Joints	Size	No.	Size			No.	Size	Article	Condition	

INSTRUCTIONS—Under Miscellaneous, Repair Buildings and Other Equipment including all Postage and Commissions. Superintendent to mail all Reports to Tulsa First of Each Month. Make Separate Report for Warehouse Accounts.

Approved _____ Supt. _____ Foreman

Form used by the Waite Phillips Company for "Material Not In Use". These forms are in duplicate, one copy being retained by the Foreman and the other is sent to the Purchasing Agent.

activities. Following is the table used by Mid-Continent operators:

1. 100%—New.
2. 75%—Second hand; Good.
3. 50%—Second Hand; needs repairs
4. Junk.

The percentage column is the actual value based upon the cost price. For instance, if the material is listed as "Class 2" on the "material not in use" form, the material is appraised at 75 per cent of its market value.

When the "material not in use" form arrives from the field man, the purchasing agent instructs his department to enter the items on a card index. This index shows the quantity and the location of this material. From this record a condensed statement is compiled and copies furnished all employees requisitioning materials. All "Class 3" equipment is sent to the reclamation depot for repair.

If the article in question has a market value of $100.00 when purchased and is listed as "Class 3" material, a deduction of 50 per cent is made and the part is then worth that amount, $50.00. In the event the cost of repair is $10.00, this is added to the $50.00 and the lease to which the material is transferred is charged with $60.000, the new value of the part.

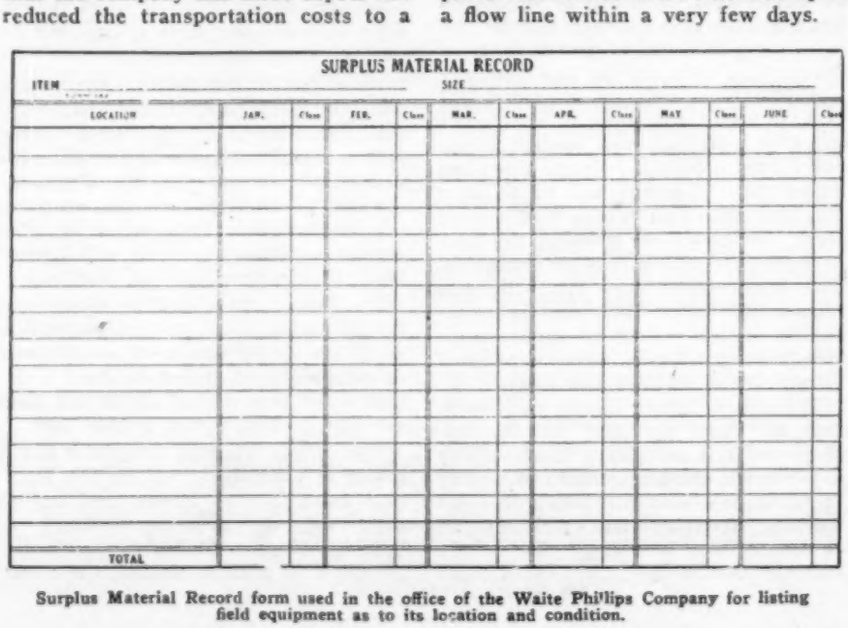
At the time the part is taken from the lease, its value is $50.00 which is the first price less the depreciation allowed. As the original lease is the cause of the necessary repair, the repair cost is therefore charged to the original lease. Therefore, the company deducts the $10.00 frm the $50.00 value and the lease is given credit for $40.00.

The most essential part of the reclamation plan of any company is the co-operation between the purchasing department and the field employee. It is first necessary for the transportation department to see that the material is picked up from the lease when it is first found to be "idle" equipment. The theft hazard around oil fields has been found excessive. The storage of reclaimed material is just about as essential a thing to regard as is the working over of the parts.

On both the "material not in use" form, which is sent in by the field foreman, and the "surplus material record" kept in card index form in the office of the company, the class and condition of the material is recorded. The "material not in use" form gives the exact condition of the material while the "surplus material record" has a numeral in the class column which corresponds with its condition.

Owing to the fact that the results obtained by the reclaim department of the Waite Phillips Company are not carried on the books as a separate account, the profits made by department are not shown, however, the saving made is almost all profit, after the repair and transportation costs are deducted. As the department workers are also employed on other work, the reclaim cost is usually small. The fact that the company has three depots has reduced the transportation costs to a minimum. The transportation costs are not charged against the material repaired but against the lease to which it is transferred or taken from.

In the event the equipment brought to the reclamation depot is adjudged unfit for furthur use; it is piled up to be sold as junk. The income from the sale of this junk is credited to the lease from which it was taken. Having torn all equipment down and the salvage parts removed before it is sold as junk, the lease from which the material was taken is given credit for an appraised value in accordance with its use in making repairs to other parts.



SURPLUS MATERIAL RECORD

ITEM _____ SIZE _____

LOCATION	JAN.	Class	FEB.	Class	MAR.	Class	APR.	Class	MAY	Class	JUNE	Class
TOTAL												

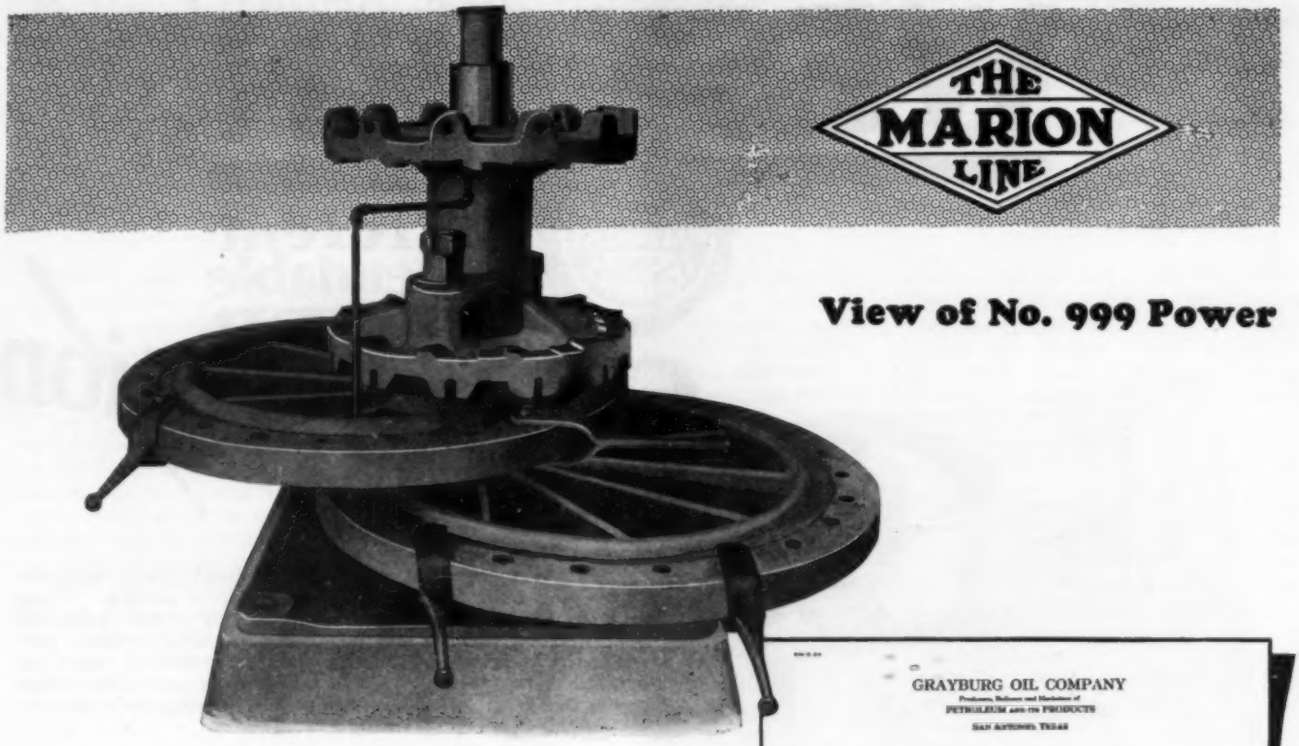
Surplus Material Record form used in the office of the Waite Phillips Company for listing field equipment as to its location and condition.

Transcontinental Petroleum Gets Good One at Paciencia

Tampico, Tamps., Feb. 28.—The Transcontinental Petroleum Company (Standard of New Jersey) continues its successful operations in Paciencia in the heavy oil district, which it is operating for its owners, the Penn Mex Fuel Company. The Standard subsidiary has just completed No. 16 for an estimated initial production of 10,000 barrels at 1725 feet.

This well is an offset to Chapacao No. 5 of the Mexican Petroleum Corporation. This latter was virtually a wildcat and many kilometers from the nearest production. It flowed 20 days for approximately 8000 barrels daily when about the middle of February the Transcontinental struck gas in its No. 16. The pressure of Chapacao No. 5 dropped to such an extent that the well stopped flowing and when the gas, estimated at 10,000,000 cubic feet daily, stopped flowing in Paciencia No. 16, the Doheny well was opened and had gone completely to salt.

It is believed that Paciencia No. 16 will, from a viewpoint of production, be one of the best wells in the upper heavy oil district, as it is 525 feet shallower than Chapacao No. 5, which was completed at 2350 feet. It is anticipated that No. 16 will be hooked up to a flow line within a very few days.



View of No. 999 Power

Powers and Engines

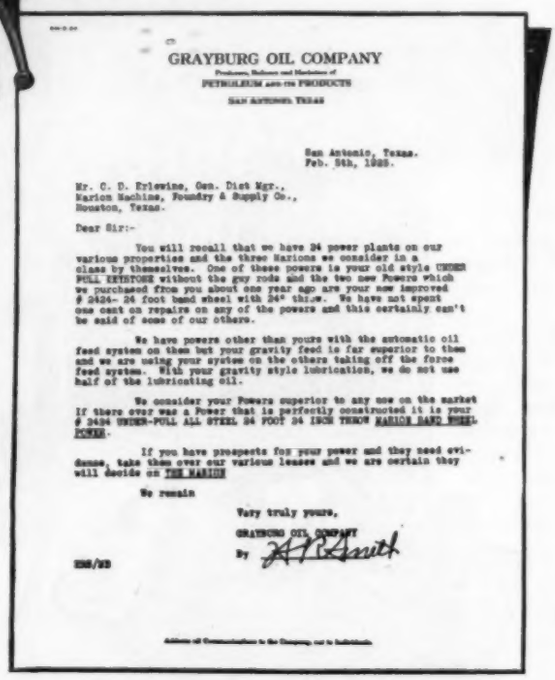
Marion Band Wheel Powers and Gas Engines are made to suit every condition in the oil fields. There is power for the small lease and power for the large.

All castings used in Marion Powers and Engines are made of our own Special iron mixture.

The tensile strength of ordinary cast iron is 16500 lbs. per square inch.

The tensile strength of the iron mixture used in Marion Band Wheel Powers and Gas Engines is 2500 to 35000 lbs. per square inch.

Strength and accuracy predominate in the Marion Line of Oil Well Machinery.



GRAYBURG OIL COMPANY

PETROLEUM AND ITS PRODUCTS

SAN ANTONIO, TEXAS

San Antonio, Texas.
Feb. 24th, 1925.

Mr. C. D. Erlewine, Gen. Dist Mgr.,
Marion Machine, Foundry & Supply Co.,
Houston, Texas.

Dear Sir:-

You will recall that we have 24 power plants on our various properties and the three Marions we consider in a class by themselves. One of these powers is your old style UNDER PULL KEYSTONE without the guy rods and the two new Powers which we purchased from you about one year ago are your new improved # 2424- 24 foot band wheel with 24" throw. We have not spent one cent on repairs on any of the powers and this certainly can't be said of some of our others.

We have powers other than yours with the automatic oil feed system on them but your gravity feed is far superior to them and we are using your system on the others taking off the force feed systems. With your gravity style lubrication, we do not use half of the lubricating oil.

We consider your Powers superior to any one on the market If there ever was a Power that is perfectly constructed it is your # 2424 UNDER-PULL ALL STEEL 24 FOOT 24 INCH THROW MARION BAND WHEEL POWER.

If you have prospects for your power and they need evidence, take them over our various leases and we are certain they will decide on THE MARION

We remain

Very truly yours,

GRAYBURG OIL COMPANY

By A. T. Smith

HHB/HH

Marion Tubular Steel Derricks. Marion Steel Crown Blocks. Standard Rig Irons. Marion Steel Band Wheels. Marion Steel Pony Wheels. Marion Band Wheel Powers. Marion O. K. Jacks. Marion Peerless Reversible Clutches. Marion 10-25 and 35 H. P. Gas Engines. Marion Hi-Test Sucker Rods. Marion Sand Proof Working Barrel. Marion Gas Pumps and all surface equipment.

Write for complete information

Check below the Bulletins wanted and mail to us at once:

- ☐ No. 198 Marion Steel Bullwheels, Band Wheels, etc.
- ☐ No. 199 Marion Tubular Steel Derrick
- ☐ No. 200 Irish Pulling Machines
- ☐ No. 202 Marion Peerless Reversible Clutches
- ☐ No. 203 Marion Gas Engines
- ☐ No. 205 Marion Band Wheel Powers
- ☐ No. 206 Marion Sand Proof Working Barrel
- ☐ No. 214 Marion Hi-Test Sucker Rods

Marion Machine Foundry & Supply Co.

MARION, INDIANA

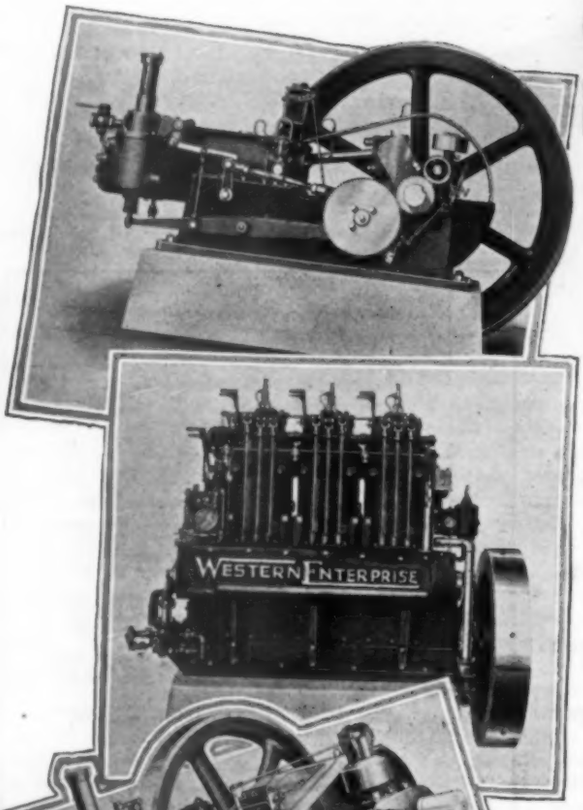
Say you saw it in The Oil Weekly

WESTERN

WESTERN MACHINERY COMPANY

Efficient Dependable POWER

Specialization



Each "Western" Engine is a specialized power unit, designed and built for a definite character of service. There is none which is equally adapted to all power purposes. Specialization such as this inevitably results in superior performance, maximum economy and dependability under all conditions of service. - - - More than a million horsepower of "Western" Engines daily are proving their supremacy for oil country service.

1. "Western" Type "G" Engines: 25-80 H. P. single cylinder units, adapted to auxiliary purposes where small power units are required.

2. "Western-Enterprise" Diesel Engines: 65-300 H. P. single and multiple cylinder units, especially adapted to heavy duty central power station service.

3. "Western" Duplex and Twin-Duplex Engines: 80-320 H. P. two and four cylinder units, designed and built especially for refinery service, gas pumping and boosting.

4. "Western" Oil Field Engine and Reverse Gear: 25-50 H. P. single cylinder units, for pumping, pulling rods, and field service.

Western Machinery Company

General Offices and Factory: 905 North Main St.

Los Angeles, California

San Francisco Offices and Factory:
Eighteenth and Alabama Streets.

Tulsa, Oklahoma. Bakersfield, California.

Say you saw it in The Oil Weekly

How Drilling Methods Are Being Improved

No basic industry has been more greatly affected by improvements of tools and methods than has oil

By Harry Pennington
Mechanical Engineer

THAT well drilling methods are improving is evident everywhere in every field—no basic industry has had is economic life affected by improvement in technique and by invention as much as the producing branch of the oil industry. The possibility of commercially reaching depths of 8000 to 10,000 feet in search of oil is a thing that will be solved and the effect of this achievement upon the industrial, social and political life of our country and the world at large can hardly be estimated.

There are practically only two systems of drilling—cable and rotary tools—both will be covered briefly.

There has been a natural aversion of cable tool men toward rotary men, and of rotary men toward cable tool men, although the writer does not believe it is deserved in either case.

The writer believes that the training of an oil producer is not complete until he has mastered both cable tools and rotary tools.

Tools should not be selected because of prejudice or because of limited previous experience, but, rather, should be selected with reference to the character of formations to be drilled and the pressure to be controlled.

To sweep rotary tools from a field because a new man has taken charge or to sweep cable tools from the field for the same reason is expensive to say the least.

There are areas where no hole has ever been drilled with rotary tools and other areas where no hole has ever been drilled with cable tools—an indication that certain areas are adapted to the one system, and other areas to the other.

Standard Tools

The standard drilling rig has been in use for centuries; its general design, tools, appliances and methods have assumed almost standard characteristics, and the proportion of rigs to depth is also almost generally the same.

The size has been increased from time to time for deeper and longer holes, until the type of rig has made some record deep holes, particularly in hard formations, and will undoubtedly continue to do so.

The improvements appear to be along the lines of more rugged rigs and the all steel rig is gradually appearing, especially for deeper, big hole work, although the general proportions have not been materially altered.

In tools the under reamer has had considerable attention and the often recorded "fishing for underreamer lugs" is disappearing from the drilling reports.

The drill stem has been altered but little; the new spiral drill stem is offered as a solution of hole alignment.

Swivelling rope sockets, preventing several undesirable things, are becoming general in use; improved temper screws and line clamps remove some delays and wire line troubles.

Steel castings and forgings are displacing the more brittle and heavier gray cast iron.

In fishing tools, the variety and usefulness is increasing. Particularly tools that will readily catch hold, and that can also be loosened at will if the fish fails to come are displacing the tool that catches and can not be loosened.

Power, with reference to fuels for standard tool drilling, is always an interesting phase of drilling, particularly where initial production is light. The multi-cylinder gas or gasoline motor operates at a fuel expense of one-fourth to one-eighth of steam power. Drillers in the older districts are becoming adept at drilling with this type of prime mover, particularly in Pennsylvania, as recorded by Grady Triplett in The OIL WEEKLY.

Electric power for standard tool work, used more in California than elsewhere, suffered a set back during the latter part of the year because of water shortage at the hydro-electric power stations due to prolonged drouth.

The standard rig of the largest size will no doubt be made of steel alloys throughout, and with the best of wire lines, the writer fully expects 8000 feet to be reached somewhere in the United States in 1925.

The Rotary System

The standard rig's younger brother, the rotary, has made much progress in every way.

The rotary is practically in its infancy, compared to the patriarch—the standard rig, and it is but natural to expect more improvement to a newer method. As a matter of fact, improvements in the rotary present a kaleidoscopic procession of tools, appliances and methods.

Harking back to the days of rotary rigs without grief stems, we ran pipe collars through the grip rings, scoring collars as well as pipe. Then the elevating grip ring appeared, followed by the grief stem, which has almost entirely done away with grip rings, although the rolling action of grip rings on the grief stem has not been secured with drive bushings.

Then came the tool joints taken from cable tools, resulting in the elimination of much pipe trouble.

From the original models of rotary rigs costing about $2500, consisting of a 15-inch rotary, 8x5x10-inch pumps, 35 horsepower boiler, 10x12-inch engine and 84-foot derrick, the size has been increased until a deep hole rotary rig of today is huge—24-inch rotary, 12x7x 14-inch pumps, three 50 horsepower boilers, 130-foot derrick and 10x12-inch twin steam engine, and the cost has increased proportionately, not only of the equipment, but also of operation due to drilling longer and deeper holes.

The work of coring is being improved for many reasons. First, fear of passing through an oil bearing horizon without detection, and second, the obtaining of specimens of fossils for paleontological and geological research, because the rotary can bring them up whole, intact, just as found imbedded.

The thousands of locations that have been and are being drilled are removing many areas formerly considered prospective oil territory. Prospecting is more hazardous now than at any time since structural geology has found application, because most of the prominent structures—those visible from the surface—have been drilled, and those remaining undrilled are, of course, less promising and more hazardous.

But the field of submerged structure is almost untouched and for this reason the art of coring to locate key beds and other sub-surface data is now receiving great impetus.

The average driller can take a core, or should; those that are not proficient should at once learn to take perfect cores from any class of formation, and, particularly, at any depth because the need for coring is here and the field must furnish them in quantity.

In coring tools, a piece of drill pipe with a saw tooth and is being replaced with especially designed barrels for takings and cutting steel.

Slips are being made of lighter weight and longer to prevent denting pipe in deep hole work.

Some remarkable depths are being reached with rotary tools—the deepest so far being in California.

As to skill in drilling deep holes the deepest uncased hole in the world is that of the Sun Company at High Island, Texas, where more than 4000 feet of open hole was drilled below a short string of surface casing in what is generally conceded to be the softest formations of any.

In rotary equipment, steel castings

have largely replaced gray iron; alloy steels are appearing in shafting, forgings and cutting steel..

Fishing tools in which the utmost ingenuity is found are increasing in number and utility. The rotary system has borrowed practically every fishing tool from the cable rig and adapted it to the rotary and there are many new tools especially for rotary fishing such as spears and overshots that catch and let go at will; reversing tools that use a right hand threaded string of pipe to unscrew a right hand threaded string down in the hole and remove it; milling tools for whip stock milling through casing; perforators for tesing upper strata.

The "scissor bill" bits, to eliminate the many round trips of replacing dull bits will eventually become perfected and in general use. The situation, as developed in 1924, is that serious, careful work, both by producer and manufacturer is being done to place this tool in commercial use. There are so many outstanding live patents covering collapsible bits that it is difficult for a strong, well established manufacturer to attempt this tool that will, must, come into general use to offset the increasing cost of holes drilled o deeper and deeper horizons.

Elevators of the swimming latch, quick closing type; tongs of the same description, for both casing and drill pipe; outside packed swivels with cones running in an oil bath; a "straight shot" drilling pump for handling heavier drilling slush and many more improvements are in the field with still others on the way.

The ring and slip rotary did away with back breaking elevator swinging, manual labor, and now the "make and break" rotary has eliminated the last routine manual labor on the derrick floor—screwing up drill pipe.

In rotary drilling, especially for prospecting work, the portable rig has found a place. These rigs are drilling prospect holes at unbelievable low costs —for instance, a comparison of two nearby rigs, prospecting, showed that steam power required 72 barrels daily of fuel oil costing $1.50 f.o.b. cars, plus 50 cents per barrel for hauling to location, while a gasoline engine driven rig used fuel in a quantity equal in money to 4 per cent of the cost of fuel oil. During wet weather the cost of hauling fuel oil rose to $3 per barrel, making the daily fuel cost for this rig $324.

The writer looks forward to gasoline engine driven rigs for all prospect work, of whatever depth.

Large diameter seamless casing has come into use, making deeper holes safer against collapse.

Production

Careful, analytical study of pumping wells has shown that long strokes of the pump are desirable and several have appeared in successful use for handling large quantities of fluid.

Sucker rods are now obtainable in the best steel alloys—shock resisting

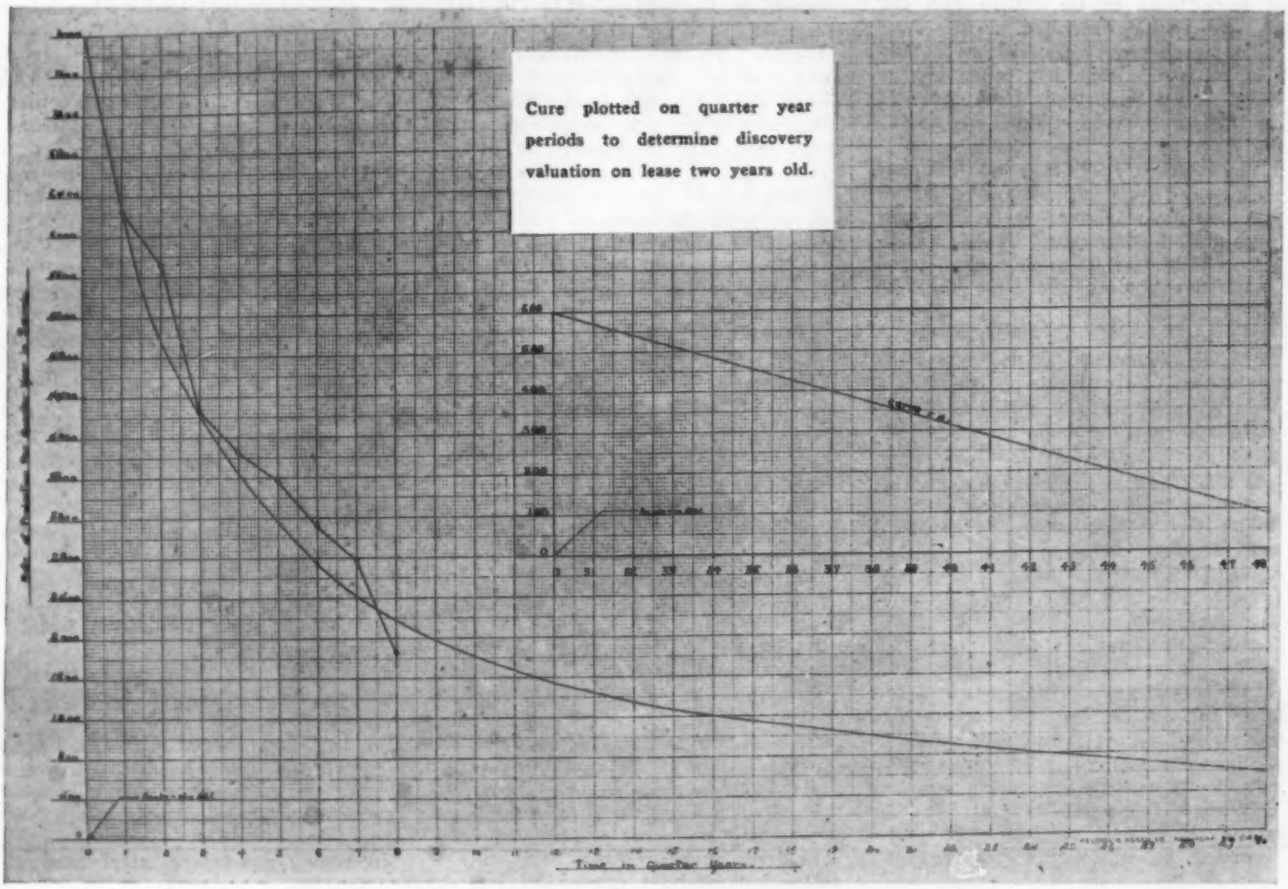
(Continued on page 56)

Good Idea for Setting Up Discovery Value

IN setting up the discovery value on a lease, which has been producing but a brief period, the Pulaski Oil Company of Tulsa, Okla., has worked out a method of basing calculations on quarter years, instead of years and plotting curves from these calculations.

In the illustration shown herewith the property had been producing only two years. The usual graph would confine this within two squares of the plot. But the time, included in the zigzag line at the left, was extended over eight quarters, each quarter occupying as much space on the graph as a year would ordinarily.

This line and calculations made from actual production records gave the curve over a period of 30 quarter years. Then production was carried over 18 further quarter periods in rectangle above.



Sectional (Portable) Houses For Industrial Purposes—Ready-Cut Houses For Permanent Homes

CRAIN
SECTIONAL BUILDINGS
(PORTABLE)

Economical Housing

for Every Oil Field Purpose

Shipped FROM STOCK
Immediately on Receipt of Order

Write, Wire or 'Phone

WAREHOUSES
OFFICE BUILDINGS
MANUFACTURING BUILDINGS
BUNK HOUSES
MESS HALLS
RESIDENCES
STORES, GARAGES, ETC.

CRAIN READY-CUT HOUSE CO.

Polk and Milby Sts. HOUSTON *Tel. Preston 3448*

Say you saw it in The Oil Weekly

PERFECTION VAPOR PRESSURE TANKS
WOOD, AND BOLTED STEEL TANKS

Here is a close-up of a Perfection Vapor Pressure Flow Tank which in addition to scrubbing oil from the gas is firing the lease boiler shown in the background. The inset is the front of the boiler. This picture was taken in the Duncan field. Name of company on request.

Literally Saves Thousands of Dollars

"PAYING for itself", is not an expressive enough term to describe the real value of the Perfection Vapor Pressure Flow Tank, when used as a gas separator.

Literally — not figuratively — it will MAKE its owner thousands of dollars.

Why? Simply because it scrubs oil clean, solves your fuel problem and delivers excess quantities of gas to the nearest gasoline plant.

So absurdly simple too!

It's merely the adaption of centrifugal force in a scientific manner. Installation of a separate costly gas separator is avoided.

The Perfection flow tank is just as important in its relation to saving money for oil producers as the Perfection Vapor Pressure tank which absolutely eliminates all gaugeable evaporation losses.

Getting in touch with one of our representatives will be one of the biggest moves for economy you ever made.

Black Sivalls & Bryson
INC.

BARTLESVILLE ~ OKLAHOMA

Branch offices in all principal active fields

Say you saw it in The Oil Weekly

U. S. Production Takes Slump in February

(Continued from page 25)

March ought to show a good deal of development for the field.

Arkansas Steady

Smackover has been the scene of considerable work in Arkansas, but the wells completed have done little more than keep production steady, and that has not been the case consistently throughout the month. Discovery of a deep sand in the Norphlet area led to a revival of work in that field recently, and tests will be made this month to determine the worth of the discovery.

Eastern States showed a tendency to slump in both completions and total production. Bad weather has retarded what work might have been started and March cannot be counted on to show much improvement.

Responding to Price

New development work began in earnest in most of the high gravity oil producing fields in North and Central West Texas during February in response to the posting of higher crude prices and increased demand for crude. The semi-shallow fields in Archer, Young, Wichita and Wilbarger Counties scored a prompt increase in drilling operations, as usual when a rising crude market is at hand, while Eastland, Stephens and other counties producing from deep pay have made substantial gains in field work since crude prices climbed to an attractive level. The demand for crude afforded by major pipe line companies and independent refiners in these fields exceeds current production, and the potential flush to be expected from the new wells drilling will not be sufficient to weaken the crude price structure locally.

New producing areas uncovered in the lower part of Archer County and between the South Vernon and Electra fields in Wilbarger County during February assure a continuation of active development work for several months, but scarcity of water for drilling purposes is proving a hindrance to extensive development work in some of the fields in these counties. Young County's daily production is again on the upward swing due to the development of two shallow oil fields in the upper part of the county near Olney. Since the expansion of the South Vernon field over a wide area, with its series of producing horizons, this field has stimulated wildcat operations in Wilbarger County to a large extent, and indications are that it will eventually be linked with the old Electra field by a series of pools.

Completions were more plentiful during February, even though three days shorter than the previous month, and total initial production of wells completed in February was above that of January, which was below normal owing to cold weather. Archer County reported 122 completions during February with 82 oil producers having a combined initial flow of 13,930 barrels, as compared to 115 completions in January with 11,760 barrels of new production from 81 oil wells. Increased wildcat exploration work accounted for the bulk of the dry holes drilled in Archer County in February.

The Panhandle District of Texas added several large oil producers in the Carson County field and extensions to the proven area, while an entirely new pool was uncovered in Wheeler County by Jim O. Whittington with an initial flow of 1100 barrels from pay at 2220 feet. The Wheeler County well has not been completed, owing to limited storage facilities, and is the shallowest well in the Panhandle District. Nearly a dozen new locations were made in the Panhandle District during February.

Although Eastland, Stephens and other nearby counties producing oil from deep pay are resuming field activity, no important developments were recorded during February, and it remains for a new field to be uncovered before drilling campaigns of any consequences can be launched. These counties are holding steady in daily production.

Big Lake Passes Eastland

The Big Lake field in West Texas has exceeded the daily output of the combined total of hundreds of wells in Eastland County, although the former has only 14 flowing and pumping producers. The Big Lake field is owned by two companies, which are drilling 18 additional tests within the proven area, and Reagan County will probably become one of the major oil centers in the state shortly after Humble's direct pipe line outlet to the Coast is completed this summer. Wildcatting in the vicinity of this field and in nearby counties has been very disappointing, with more than a score of deep failures scored in the past six months.

New production added to the East Central Texas district during February was almost entirely confined to the Wortham field, which reached its peak in daily production and field work in January. Most of the lease owners at Wortham have completed their development programs, except the Humphreys-Boyd Oil Company and the Humble Oil and Refining Company. These two major producers at Wortham control all leases on the south and north ends of the structure, respectively, and will be engaged in drilling inside locations for several months. Since their leases are free from outside drainage, the remaining field work is not being pushed to any great extent, and the wells are comparatively small in production. Wortham added almost as many completions in February, as were reported in January, but the initial output of wells scored in February were comparatively small, with a large number of failures coming from tests drilled off structure. Wortham is credited with having produced approximately 2,061,500 barrels of crude during February, while the total production for the five fields in the Balcones-Mexia fault region is estimated at 4,495,365 barrels during February.

Rainbow Bend Has Increase

Total production for Kansas during the 28 days of February was 2,498,768 barrels of crude oil. It is interesting to note the fact that the Rainbow Bend field of Cowley County showed a substantial increase in its production although the month had three less days than the previous one. Total production of this field is 350,896 barrels as compared to 269,235 barrels for January. This was due to the many new wells brought in by the Waite Phillips, Marland Oil Company and Independent Oil and Gas Company interests.

Greenwood County continues to lead the state in individual reports with 613,340 barrels to its credit, followed by Eldorado with 447,496 barrels.

Flush production for Kansas amounted to 18,219 barrels as compared to 7661 barrels for the previous month. This increase is due to Cowley County, which produced 15,189 barrels of the 18,219 barrels. The Cowley County record was made from 28 completions, 23 producers and 5 failures. Greenwood County showed 3005 barrels from 20 producers.

Oklahoma Up

During the 28 days of February the state of Oklahoma produced 13,681,920 barrels of oil. Comparing this with the month previous which had three more days and allowing a daily average production of 480,000 for the three days, the total for February is approximately 73,000 barrels higher than the total for January.

The Tonkawa pool led all others by a wide margin with a total production for the 28 days of 2,703,708 barrels. The Burbank pool was second with 1,606,220 barrels while the Bristow district sent in a total of 1,500,672 barrels to take third place.

The Gilcrease-Papoose pool passed the total for the Osage pools (outside of Burbank) and also Cromwell to take fourth place with a total of 1,065,904 barrels as the February production.

Total field activity for February almost reached the total of January despite the three day handicap. There were 263 wells completed during the month. Of this number, 158 were producers, 31 were gas wells and 74 were dry and abandoned. From the 158 producers there were 85,811 barrels of initial production. This brings the average production per well above the average of January.

Seminole County led all others in reporting completed wells with a total of 48. Of this number 41 were completed as commercial producers with an initial production of 23,590 barrels. Noble County, with only 11 producers

Summary of Field Operations for February

completed had an initial production of 20,660 barrels.

The most important happening in the state during the month was probably the completion of a large well by the Sinclair Oil & Gas Company in the north end of the Cromwell pool. As a result of this completion, 19 locations were made during the first week following. The Dixie Oil Company well in the old Yeager field in Hughes County which was completed for a 200 barrel well is also attracting attention.

Eastern States

PENNSYLVANIA

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Pennsylvania	103	80	14	9	286
West Virginia	145	42	84	19	533
Kentucky	101	66	5	30	1,245
Indiana	8	4	..	4	95
Ohio	150	80	34	36	893
New York	19	19	..	..	45
Illinois	14	8	..	6	270
Tennessee	2	..	1	1	....
Totals	542	299	138	105	3,367
Allegheny	3	1	2	..	5
Beaver	1	..	1	..	....
Bradford	55	55	..	..	195
Butler	10	5	2	3	21
Center-Middle	1	..	1	..	....
Clarion	6	4	1	1	18
Greene	12	4	6	2	21
Mercer	1	1	..	..	2
Venango	10	10	..	..	24
Washington	4	..	1	3	....
Totals	103	80	14	9	286

WEST VIRGINIA

Boone	7	1	6	..	90
Cabell	4	..	4	..	....
Calhoun	6	5	1	..	13
Doddridge	5	2	2	1	87
Gilmer	14	..	14	..	....
Harrison	7	..	6	1	....
Jackson	1	..	..	1	....
Kanawha	7	2	4	1	15
Lewis	4	1	3	..	5
Lincoln	5	..	5	..	....
Marion	8	1	7	..	5
Marshall	10	5	4	1	30
Monongalia	5	1	3	1	20
Pleasants	6	4	1	1	17
Putnam	2	..	2	..	....
Ritchie	33	9	15	9	81
Roane	3	1	2	..	10
Tyler	6	2	2	2	125
Wetzel	7	3	3	1	22
Wood	4	4	..	..	11
Wirt	1	1	..	..	2
Totals	145	42	84	19	533

KENTUCKY

Allen	16	7	..	9	85
Barren	23	19	1	3	178
Breathitt	1	..	1	..	....
Cumberland	6	3	..	3	18
Estill	1	1	..	..	1
Floyd	1	..	1	..	....
Green	1	..	..	1	....
Jackson	1	..	..	1	....
Johnson-Magoffin	8	7	..	1	51
Lawrence-Johnson	11	10	..	1	312
Lee-Owsley	8	6	..	2	65
Logan	2	..	..	2	....
Owensboro	3	2	..	1	7
Rowan	2	..	2	..	....
Simpson	1	..	..	1	....
Warren	10	6	..	4	398
Wayne	4	3	..	1	113
Wolfe	2	2	..	..	17
Totals	101	66	5	30	1,245

INDIANA

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Delaware	1	1	..	..	10
Gibson	2	2	..	..	55
Jay	3	1	..	2	30
Knox	1	..	..	1	....
Sullivan	1	..	..	1	....
Totals	8	4	..	4	95

OHIO

Allen	3	3	..	..	87
Ashland	4	..	3	1	..
Athens	12	4	6	2	16
Auglaize	6	6	..	..	88
Belmont	1	..	1	..	..
Columbiana	1	1	..	..	2
Coshocton	1	..	1	..	..
Cuyahoga	2	..	..	2	..
Darke	2	2	..	..	32
Fairfield	4	1	..	3	25
Hancock	4	4	..	..	80
Hardin	2	2	..	..	10
Hocking	1	..	..	1	..
Holmes	6	..	5	1	..
Knox	1	1	..	..	3
Licking	13	11	1	1	299
Lorain	3	..	2	1	..
Medina	3	..	2	1	..
Meigs	3	1	..	2	5
Mercer	4	4	..	..	31
Monroe	5	4	..	1	15
Morgan	4	3	..	1	38
Muskingum	4	1	..	3	2
Noble	7	6	..	1	36
Ottawa	2	2	..	..	10
Paulding	3	2	1	..	14
Perry	4	2	2	..	18
Richland	1	1	..	..	4
Sandusky	2	1	..	1	10
Shelby	2	1	..	1	1
Tuscarawas	1	1	..	..	5
Van Wert	2	..	..	2	..
Washington	22	9	6	7	23
Wayne	8	2	4	2	10
Wood	7	5	..	2	29
Totals	150	80	34	36	893

NEW YORK

Allegany	19	19	..	..	45

ILLINOIS

Clark	6	4	..	2	95
Lawrence	3	1	..	2	100
Wabash	4	3	..	1	75
Washington	1	..	..	1	..
Totals	14	8	..	6	270

TENNESSEE

Sumner	2	..	1	1	..

MONTHLY SUMMARY OF OKLAHOMA PRODUCTION BY FIELDS

Field—	Barrels
Tonkawa	2,703,708
Burbank	1,606,220
Bristow	1,500,672
Glenn-Papoose	1,065,904
Cromwell	1,051 892
Osage (outside Burbank)	897,736
Okmulgee	788,648
Cushing	610,708
Hewitt	475 328
Healdton	325 108
Wewoka	312,788
Otoe	240,576
Duncan and Walters	221,592
Stroud	78,092
Braman	71 792
Other fields	1,731,156
Total	13,681,920

Oklahoma

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Beckham	1	..	..	1	....
Burbank	7	6	..	1	2,850
Carter	11	11	..	..	1,096
Creek	35	19	4	12	7,127
Garfield	1	1	..	..	4
Garvin	2	..	..	2	....
Grady	6	..	3	3	....
Grant	1	..	..	1	....
Greer	1	..	..	1	....
Hughes	18	15	..	3	10,841
Jefferson	1	..	..	1	....
Kay	11	6	4	1	7,108
Muskogee	2	..	2	..	....
Noble	14	11	..	3	20,660
Okfuskee	13	8	2	3	4,715
Okmulgee	17	11	1	5	3,035
Osage	19	9	1	9	1,560
Pawnee	7	4	1	2	2,068
Payne	3	..	2	1	....
Pontotoc	2	..	1	1	....
Rogers	1	1	..	..	50
Seminole	48	41	1	6	23,590
Stephens	10	3	3	4	117
Tulsa	19	12	2	5	1,990
Wagoner	11	..	4	7	....
Washington	2	..	..	2	....
Totals	263	158	31	74	85,811

MONTHLY SUMMARY OF KANSAS PRODUCTION BY FIELDS

Field—	Barrels
Greenwood	613,340
Eldorado	447,496
Rainbow Bend	350,896
Elbing and Peabody	208,068
Fox-Bush	126,056
Augusta and Douglas	81 592
Blankenship	73,864
Florence and Covert	63,096
Other fields	534,360
Total	2,498,768

Kansas

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Butler	3	2	..	1	25
Chautauqua	3	..	1	2	....
Cowley	28	23	..	5	15,189
Greenwood	29	20	..	9	3,005
Harvey	2	..	..	2	....
Marion	2	..	..	2	....
Montgomery	1	..	..	1	....
Osage	1	..	..	1	....
Sumner	3	..	..	3	....
Totals	72	45	1	26	18,219

California

Field—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Brea	..	..	..	..	....
Comanche Point	..	..	..	..	....
Coyote Hills	..	..	..	..	....
Dominguez	4	4	..	..	6,115
E. Kern River	1	..	..	1	....
Elk Hills	1	..	..	1	....
Huntington Bch.	6	6	..	..	550
Inglewood	2	2	..	..	575
Jacalitos Dome	..	..	..	..	....
Long Beach	7	7	..	..	1,495
McKittrick	1	1	..	..	400
Midway	5	5	..	..	3,330
Montebello	..	..	..	..	....
Rosecrans	13	13	..	..	8,115
Santa Fe Sps.	1	1	..	..	200
Santa Barbara County	..	..	..	..	....
Santa Clara Co.	..	..	..	..	....
So. Kern River.	2	1	..	1	100
Sunset	2	2	..	..	512
Torrance	21	21	..	..	1,690
Ventura	3	3	..	..	10,555
Wheeler Ridge	3	2	..	1	320
Totals	72	68	..	4	32,957

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†Breckenridge, Texas
†Electra, Texas
†Burkburnett, Texas
†Wilson, Okla.
†Duncan, Okla.
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†Yale, Okla.
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Texas

Field—	Completions	Producers	Gas Wells	Failures	Init. Prod.	Monthly Prod.
N. Texas	230	138	..	92	23,350	2,446,170
Cent. and W. Texas	49	23	..	26	2,761	1,263,200
E. Texas	10	..	10	..	....	.....
E. Cent. Texas	170	130	..	40	52,332	4,495,365
Gulf Coast	59	39	..	20	10,806	1,552,404
Tex. Misc.	17	16	1	..	5,613	1,458,588
Totals	535	346	11	178	94,862	11,215,727

EAST TEXAS

Field—	Completions	Producers	Failures	Init. Prod.	Monthly Prod.
Waskom Gas Field	7	..	7	....	.....
Panola Gas Field	3	..	3	....	.....
Totals	10	..	10	....	.....

NORTH TEXAS

Archer County	122	82	40	13,930	1,118,775
Electra	23	14	9	455	477,260
Burburnett	9	5	4	95	413,420
Young County	41	21	20	4,385	138,460
So. Vernon-Wilbarger Co.	17	12	5	4,085	129,185
K-M-A-Iowa Park	9	4	5	400	103,600
Panhandle Dis.	..	..	..	....	51,155
Petrolia-Clay County	..	..	..	....	10,465
Montague Co.	..	..	..	....	2,240
Throckmorton County	..	..	..	....	875
Jack County	..	..	..	....	735
Wildcats	9	..	9	....	.....
Totals	230	138	92	23,350	2,446,170

CENTRAL WEST TEXAS

Stephens Co.	12	9	3	752*	433,080
Reagan County	9	1	8	1,625	312,725
Eastland Co.	13	8	5	99†	296,825
Moran-Shackelford County	1	1	..	35	66,850
Callahan Co.	..	..	..	....	58,800
Mitchell Co.	..	..	..	....	45,080
Brown Co.	5	3	2	180	25,025
Strawn-Palo Pinto County	2	..	2	....	20,125
Coleman Co.	..	..	..	....	1,960
Thrall- Williamson County	..	..	..	....	1,470
Scurry Co.	..	..	..	....	1,260
Wildcats	7	1	6	70	.....
Totals	49	23	26	2,761	1,263,200

*Includes 15,000,000 cu. ft. gas.
†Includes 37,000,000 cu. ft. gas.

EAST CENTRAL TEXAS

Wortham	159	126	33	52,260	2,061,500
Corsicana-Powell	4	3	1	72	1,557,990
Mexia	..	..	..	....	557,550
Richland	1	..	1	....	264,600
Currie	1	..	1	....	53,725
Wildcats	5	1	5	*	.....
Totals	170	130	40	52,332	4,495,365

*Includes 2,000,000 cu. ft. gas.

GULF COAST

Field—	Completions	Producers	Failures	Init. Prod.	Monthly Prod.
Barbers Hill	..	..	..	....	3,332
Batson	5	4	1	105	42,336
Blue Ridge	1	1	..	125	18,004
Damon Mound	..	..	..	....	34,580
Dayton	..	..	..	....	.....
Goose Creek	6	3	3	242	71,176
High Island	..	..	..	....	1,540
Hockley	..	..	..	....	.....
Hull	15	11	4	3,805	424,588
Humble	..	..	..	....	39,856
Markham	..	..	..	....	3,976
Nacogdoches	..	..	..	....	616
Orange	11	6	5	5,075	264,936
Pierce Junc.	1	1	..	225	25,816
Big Creek	2	..	2	....	15,224
Saratoga	2	2	..	35	42,000
Spindle Top	3	2	1	50	26,488
South Liberty	1	1	..	500	16,016
Sour Lake	5	5	..	539	168,700
W. Columbia	3	2	1	45	353,220
Wildcats	4	1	3	60	.....
Totals	59	39	20	10,806	1,552,404

TEXAS MISCELLANEOUS

Field—	Completions	Producers	Gas Wells	Failures	Init. Prod.	Monthly Prod.
Luling	4	4	..	..	553	965,900
Mirando	2	2	..	..	1,100	352,436
Somerset	..	..	..	..	....	108,836
Misc. So. Texas	1	1	..	..	400	31,416
Wildcats	10	9	1	..	3,560	.....
Totals	17	16	1	..	5,613	1,458,588

Mountain States

	Completions	Producers	Gas Wells	Failures	Initial Prod.
Wyoming	12	9	1	2	720
Montana	4	4	..	..	2,150
New Mexico	1	1	..	..	900
Colorado	5	2	..	3	125
Totals	22	16	1	5	3,895

WYOMING

Horse Creek Structure	1	..	..	1	....
Salt Creek	9	9	..	..	720
Oregon Basin	1	..	1	..	....
Tisdale Dome	1	..	..	1	....
Totals	12	9	1	2	720

MONTANA

Kevin-Sunburst	3	3	..	..	2,100
Misc.	1	1	..	..	50
Totals	4	4	..	..	2,150

NEW MEXICO

Artesia	1	1	..	..	900

COLORADO

Freemont Co.	1	1	..	...	25
La Plata Co.	1	..	..	1	....
Berthoud Struc.	1	..	..	1	....
Misc.	2	1	..	1	100
Totals	5	2	..	3	125

Arkansas

Field—	Completions	Producers	Gas Wells	Failures	Init. Prod.	Monthly Prod.
El Dorado	..	..	..	..	....	274,036
Irma	3	2	..	1	350	33,488
Smackover	77	60	2	15	5,685	2,604,504
Stephens Dist.	..	..	..	..	....	57,064
Wildcats	2	..	..	2	....	.....
Totals	82	62	2	18	6,035	2,969,092

Louisiana

Anse La Butte	..	..	..	..	....	560
Bellevue	1	1	..	..	25	97,636
Bull Bayou	..	..	..	..	....	127,400
Caddo	3	2	..	1	55	323,568
Cotton Valley	7	7	..	..	1,535	211,736
Edgerly	2	1	..	1	250	12,768
Elm Grove	2	..	1	1	....	16,408
Evangeline	4	4	..	..	650	21,168
Haynesville	..	..	..	..	....	416,696
Homer	..	..	..	..	....	193,840
Lockport	3	1	..	2	200	12,348
Monroe	3	..	3	..	....	.....
Sarepta	2	..	2	..	....	.....
Shongaloo	..	..	..	..	....	.....
Vinton	4	1	..	3	25	158,956
Wildcats	8	..	..	8	....	.....
Totals	39	17	6	16	2,740	1,593,084

Government Has Vacancy Junior Petroleum Engineer

Receipt of applications for junior petroleum engineer will close March 28. The date for the assembling of competitors will be stated on the admission cards sent applicants after the close of receipt of applications.

The examination is to fill vacancies in various branches of the government service at an entrance salary of $1860 a year. Advancement in pay may be made without change in assignment up to $2400 a year.

The duties of the position are to perform such work as routine testing, drawing up plans for minor projects, performing field work, making computations, preparing maps, compiling reports, handling technical correspondence and other related work.

Competitors will be rated on general physics, pure mathematics, practical questions on petroleum engineering, including applied mechanics, and education, training and experience. Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the board of United States civil service examiners at the post office or customhouse in any city.

Shell Begins Wildcatting On Large Mexican Acreage

Puerto Mexico, Ver., Feb. 28.—The Cia. Mexicana-Holandesa, "La Corona," S. A., subsidary of the Royal Dutch Shell, is preparing to start wildcat operation at Canton Acayucan, Veracruz, where it has holdings of approximately 100,000 acres. This property lies approximately 75 kilometers west of Puerto Mexico and from geological reports appears to be of the same salt dome structure as has been encountered by the Mexican Eagle and the Mexican Seaboard companies in their operations around Minatitlan.

Eastern States Pipe Line Traffic

Pittsburgh, Pa., Feb. 20.—Crude oil traffic through pipe line systems east of the Mississippi river during the month of January as compared to business in December of last year was as follows:

	Runs from Wells		—Other Receipts—		Reg. and other Deliveries	
	Jan., '25	Dec., '24	Jan., '25	Dec., '24	Jan., '25	Dec., '24
National Transit Co.	158,225	146,920	668,446	513,499	782 203	715,261
Southwest Penn Pipe	75 622	77.056	642,280	537,648	679,963	636,433
Eureka Pipe Line	336,785	325,500	233,462	281,069	737,515	662,326
Buckeye Pipe Line	402,153	396,351	2,175,110	1.626 465	2,804 398	2,678,606
Indiana Pipe Line	9,563	9,313	2,121,940	2,002,320	2,122,149	2,000,383
Cumberland Pipe Line	316,512	322,427	167	100	285,779	335,868
Southern Pipe Line	....	....	98,306	168,275	141,942	93,669
Crescent Pipe Line	....	....	....	....	....	....
New York Transit	17,233	18,226	918,830	593,930	833,143	671,474
Northern Pipe Line	....	....	1,425,126	1,330,140	1,408,021	1,028,123
Illinois Pipe Line	666,779	613,460	501,681	341,179	943,673	1,006,948

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Small wonder Byers tubing stands up! The tough fibrous metal withstands vibration and shock for a period of many years. Corrosion is effectively resisted by the millions of tiny slag filaments incorporated in the metal. The weld, on the average, has been shown to be fully as strong as the other parts of the pipe wall. So its record in the oil fields is one of lasting satisfaction.

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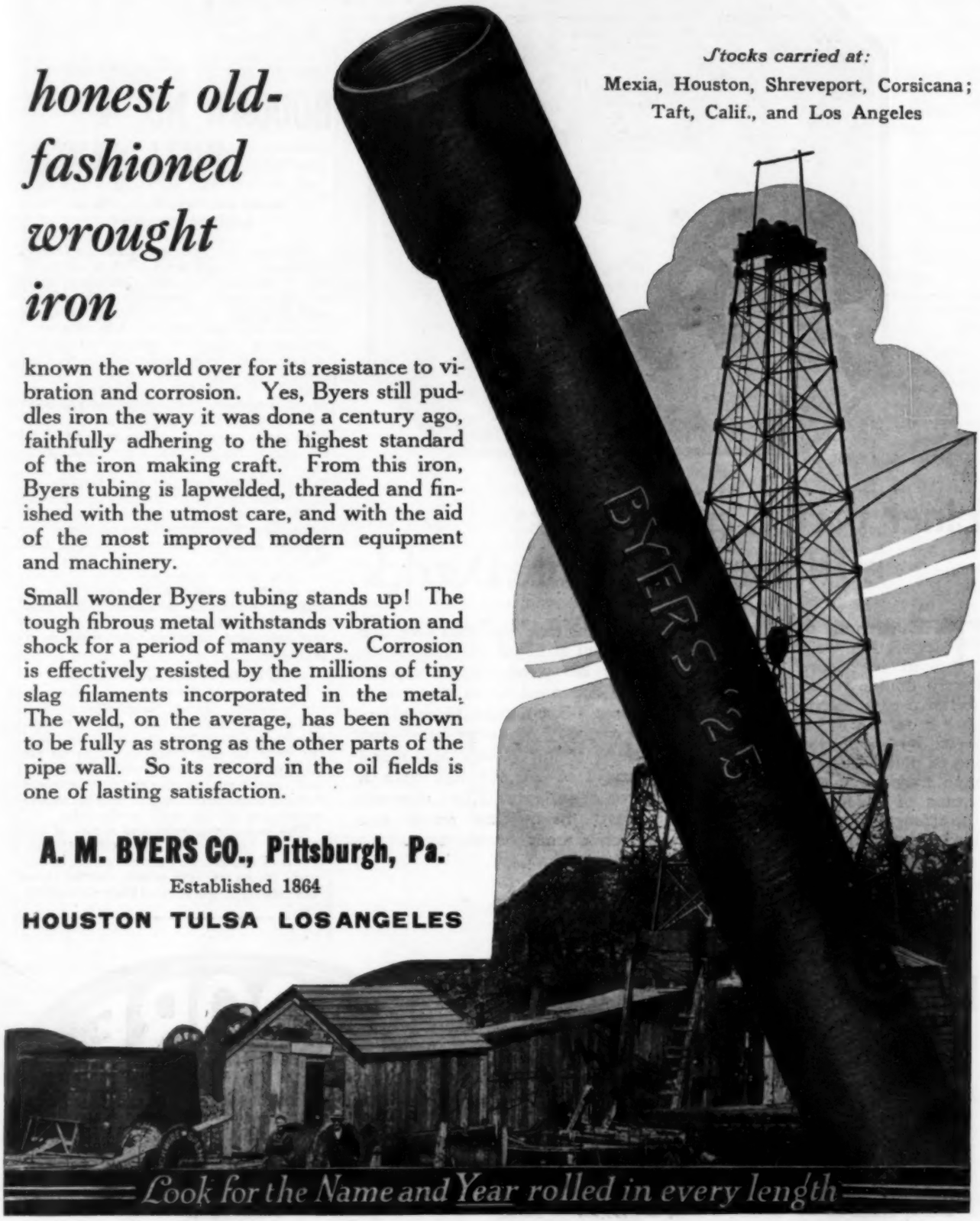

Look for the Name and Year rolled in every length

"Luffing" on liners stuck in three wells; pulls in all derricks except one—a MOORE

Crew of Bodcaw No. 4 with the eight pieces of broken liner

Liner parted eight times; no damage to Moore Derrick

THE strength of the tubular leg section, weight for weight, used in Moore derricks, is nearly double that of any other section used for derrick legs. When such a derrick in addition is reinforced by a set of "relegs" consisting of plain 4-inch pipe (used drill pipe may be used) attached by means of Moore special fittings, the strength of the derrick is doubled and tripled. The stresses possible in the case described here, are estimated at about 428,000 lbs. or more. No wood derrick can be safely depended on to stand such stresses. But a light Moore Derrick with 3" 7.57-lb legs, reinforced with 4" 15-lb. "Relegs" will stand a stress of 247,850 lbs. with a factor of safety of 4, its ultimate strength being thus nearly one million pounds or 500 tons.

Catalog gives more complete information. Free for the asking.

BODCAW NO. 4 WELL SAVED

Wood Derricks Pulled In— MOORE STANDS

The Ohio Oil Company recently found it necessary to pull the $5\frac{3}{16}$" liner on their No. 4 Bodcaw Lumber Company well at Cotton Valley, Louisiana. Over this well they had an 88'3" Moore Tubular Derrick, equipped with 4" 15-lb. reinforcing legs or "relegs." Nearby the driller of two other wells undertook to do the same thing with wood derricks. J. S. Hasson, General Superintendent, and M. V. Pepsaire, Drilling Superintendent for the Ohio Oil Company report that after unsuccessfully attempting to pull the liner in Bodcaw No. 4 with seven and nine lines, it was decided to "luff" it; this being the last and final remedy in rotary drilling. After stringing up a three-fall luff on seven lines, making a total of twenty-one lines, they luffed on the stuck liner for a week, with the result that the liner was pulled apart eight times but in spite of the enormous stress imposed on the Moore derrick, it stood up and suffered no harm whatever. By this method, they were finally enabled to clean the hole and complete the well as a producer.

Other Wells Doubtful

The owners of the other two wells were not so lucky. One of them, after pulling in the wood derrick three times, parted the liner below the casing, compelling the crew to side track the liner in an attempt to complete the well. The other had almost exactly the same experience. Neither hole can be cleaned, and successful completion of the wells is doubtful.

The superintendents and crews of the Bodcaw No. 4 are unstinted in their praise of the Moore derrick, giving it full credit for its strength which enabled them successfully to work out of their difficulties.

Lee C. Moore & Company, Inc.

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ESTABLISHED 1907

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MOORE TUBULAR STEEL DERRICKS

Say you saw it in The Oil Weekly

Mexican Output for 1924 Shows Decline

Increase in volume of heavy oil produced offset by heavy decline from light wells

Tampico, Tamps., Feb. 21.—Production of light and heavy Mexican crude oil for 1924 totaled 140,699,208 barrels, a decrease of 11,028,362 barrels from production the year previous, when 151,727,570 barrels of oil were withdrawn from wells in the Southern and Panuco fields.

Heavy oil production amounts to 100,411,433 barrels, an increase of 12,058,659 barrels from the year before, while withdrawals of light oil to the amount of 40,287,775 barrels were 23,087 barrels less than in 1923.

The Doheny interests lead all producers with 29,248,961 barrels of light and heavy crude, a decrease of 6,820,833 barrels from 1923. Of the 1924 production 22,185,244 barrels was produced by the Huasteca Petroleum Company, the Doheny subsidiary in the light oil district, which production was more than 50 per cent of the total light oil produced during the year. These withdrawals, however, were a decline of 11,270,389 barrels from those of 1923. The decrease in production is not a true indication of the company's holdings, as it limited itself to approximately 75,000 barrels daily with a potential possible production of 150,000 barrels daily with the company's holdings mainly in non-competitive territory, primarily Cerro Azul.

In this hacienda the Huasteca is producing 10,000 gallons daily of 81.2 gravity gasoline from an absorption plant which is running 8,000,000 cubic feet of gas. One million seven hundred thousand cubic feet comes from wells Nos. 25 and 28 Cerro Azul, freak wells of this district, which have never given anything but gas. The balance of the gas is being taken from manifolds at wells which are being flowed for oil. The company is about to complete an absorption plant of similar size at its Tierra Blanca pump station and is understood to be making preparations for the building of another absorption plant at Chapapote Nunez. The gasoline is being flowed directly into Tampico from Cerro Azul through a 4-inch line.

Heavy Oil District

In the heavy oil district the Mexican Petroleum Corporation produced 7,063,717 barrels, an increase of 4,449,556 barrels from the year before. Withdrawals at the present time are averaging 54,000 barrels daily, all of which is being pumped through new pipe line from the field into the Tampico terminal, a distance of 65 kilometers. A good portion of this oil comes from wells which can not be offset and which are not being flowed to full capacity.

The Transcontinental Petroleum Company (Standard of New Jersey) was the second largest producer with 21,330,812 barrels, a decrease of 3,750,840 barrels. Light oil comprised but 1,478,057 barrels of the total production, approximately 50 per cent of that of the year before. Twenty per cent of the heavy oil production of 19,852,755 barrels came within the last two months of 1924, with over four million barrels being taken from the Cacalilao and Paciencia y Aguacate holdings during November and December.

Although the Transcontinental is withdrawing but an average of 70,000 barrels of heavy oil daily, it has an estimated potential production of 160,000 barrels. A good share of this is from wells which can not be offset in Paciencia y Aguacate and which the Standard subsidiary is operating for the Penn Mex Fuel Company. With additional pipe line facilities now in the process of construction it is estimated that withdrawals will shortly be increased to 100,000 barrels daily. The company could take more than this amount at the present time, but for the fact that it is receiving an average of 40,000 barrels a day in Cacalilao from the Mexican Seaboard Oil Company under a three year contract.

The Dutch Shell subsidiary, "La Corona," was the third largest producer in Mexico during 1924, with 17,513,801 barrels, of which all but 655,087 barrels were heavy crude. This production represents a loss of 13,192,702 barrels from 1923, and is practically all in heavy crude due to the intrusion of salt water in the Corona's holdings in Cacalilao.

The Mexican Seaboard Oil Company, operating under the name of the International Petroleum Company, was the fourth largest producer of crude in Mexico in the year just passed, with 15,291,769 barrels of light and heavy crude oil, as against 6,220,321 barrels in 1923. Increasing salt water in Toteco caused light oil production to decrease almost 50 per cent, but 1,776,000 barrels, while the development of Seaboard holdings in Cacalilao were responsible for an increase in heavy oil of 10,647,266 barrels.

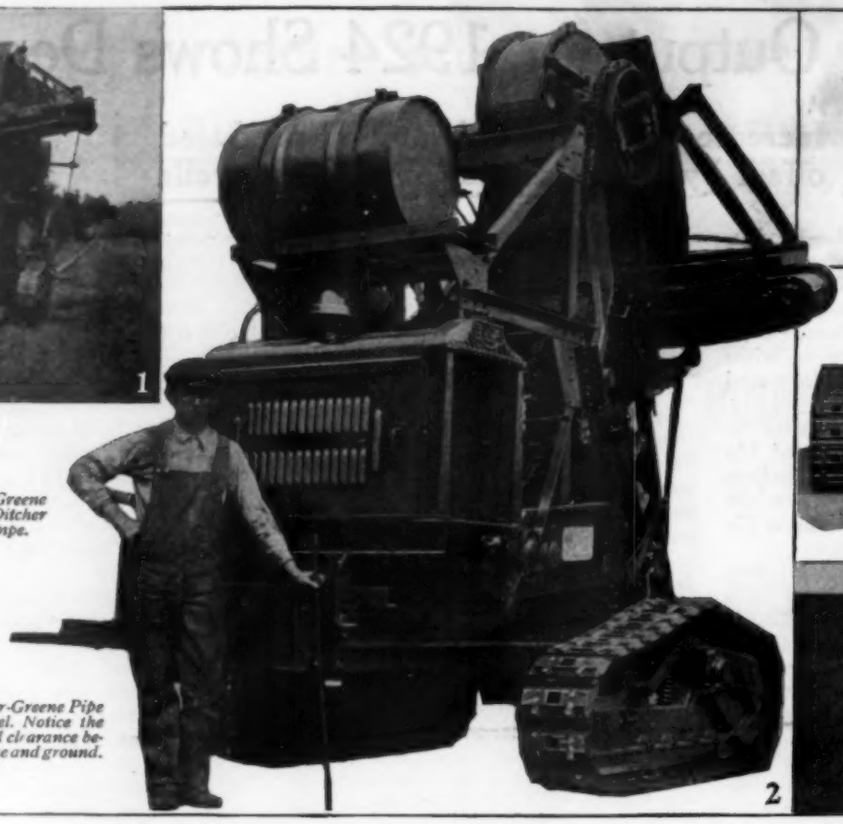
At present the company is producing better than 40,000 barrels daily. Of this production the first 40,000 barrels goes to the Standard Oil of New Jersey under a contract for three years, while the next 10,000 barrels is deliverable to the Sinclair. The Seaboard is maintaining an extremely active drilling campaign with about 25 rigs running, including a number of wildcat endeavors.

Flush production the early part of 1924 in Cacalilao, where the Sinclair is operating certain property jointly with the Empire Gas and Fuel Company, was responsible for an increase of 6,067,849 barrels in 1924, production against that of 1923, for the former.

(Continued on page 92)

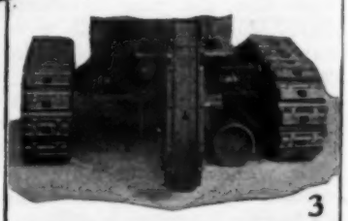
Company—	Production 1924 Light Crude	Heavy Crude	Total	Production, 1923 Light Crude	Heavy Crude	Total	*Increase or **Decrease Light Crude	Heavy Crude	Total
Huasteca	22,185,244	7,063,717	29,248,961	33,455,633	2,614,161	36,069,794	**11,270,389	* 4,449,556	** 6,820,833
Transcontinental	1,478,057	19,852,755	21,330,812	2,120,889	22,969,763	25,090,652	** 642,832	** 3,117,008	** 3,759,840
Dutch Shell	655,087	16,858,714	17,513,801	1,087,862	29,618,641	30,706,503	** 432,775	**12,759,927	**13,192,702
Mexican Seaboard	1,776,000	13,515,769	15,291,769	3,351,818	2,868,503	6,220,321	** 1,575,818	* 10,647,266	* 9,071,448
Mexican Sinclair	139,167	13,848,819	13,987,986	175,417	7,744,720	7,920,137	** 36,250	* 6,104,099	* 6,067,849
Gulf Oil Corporation	2,687,293	8,543,038	11,230,331	5,649,002	2,358,018	8,007,020	** 2,961,709	* 6,185,020	* 3,223,311
Mexican Eagle	5,073,731	669,959	5,743,690	9,401,400	.....	9,401,400	** 4,327,669	* 669,959	** 3,657,710
Rich Mex	.....	4,947,651	4,947,651	.....	1,649,235	1,649,235	.....	* 3,298,416	* 3,298,416
Southern Pacific	.....	3,727,203	3,727,203	.....	3,381,435	3,381,435	.....	* 345,768	* 345,768
New England	44,882	2,467,110	2,511,992	64,403	4,995,714	5,060,117	** 19,521	** 2,528,604	** 2,548,125
Atlantic Gulf	1,696,492	.....	1,696,492	3,180,326	.....	3,180,326	** 1,483,834	.....	** 1,483,834
Penn Mex	1,675,143	.....	1,675,143	895,895	.....	895,895	* 779,248	.....	* 779,248
Texas	241,968	1,300,002	1,541,970	337,605	2,300,090	2,637,695	** 95,637	** 1,000,088	** 1,095,725
Island	726,008	.....	726,008	1,162,485	.....	1,162,485	** 436,477	.....	** 436,477
National Railways	.....	805,346	805,346	.....	176,442	176,442	.....	* 628,904	* 628,904
Panuco Boston	.....	655,882	655,882	.....	705,659	705,659	.....	** 49,777	** 49,777
Freeport Sulphur	.....	548,963	548,963	.....	446,606	446,606	.....	* 102,357	* 102,357
Cortez-Atlantica	548,262	.....	548,262	369,026	.....	369,026	* 179,236	.....	* 179,236
General Petroleum	15,304	32,629	47,933	20,288	85,586	105,874	** 4,984	** 52,957	** 57,941
Pierce	57,273	242,652	299,925	68,180	147,902	216,082	** 10,907	* 94,750	* 83,843
Marland	.....	9,895	9,895	.....	5,196	5,196	.....	* 4,699	* 4,699
Empire Gas & Fuel	.....	3,978	3,978	.....	14,578	14,578	.....	** 10,600	** 10,600
Miscellaneous	1,287,864	5,317,351	6,605,215	2,034,567	6,270,525	8,305,092	** 746,703	** 953,174	** 1,699,877
Totals	40,287,775	100,411,433	140,699,208	63,374,796	88,352,774	151,727,570	**23,087,021	*12,058,659	**11,028,362

1—A Barber-Greene Pipe Line Ditcher riding the pipe.



2—The Barber-Greene Pipe Line Model. Notice the exceptional clearance between frame and ground.

3—The Barber-Greene Pipe Line Model straddles pipe easily. Compactness permits the machine to follow pipe curves closely.



4—The finished job. Notice the clean-cut ditch.

Riding Pipe Lines With the "Diggenest" Ditcher

Ample clearance between the ground and frame, the boom and crawlers permits the Barber-Greene Pipe Line Ditcher to ride pipe easily, even 12-in. pipe. Due to the compact crawlers and the vertical boom, which give this machine greater mobility than any other ditcher, the contour of the pipe can be followed closely.

No matter how the curves are laid in the pipe, the Barber-Greene will dig the trench close to it at all times. The Barber-Greene can cut a curve with a 50-foot radius.

Compactness has been achieved in this machine by good design rather than by sacrificing weight, to reduce size. A full-crawler mounting similar to a tractor carries the whole machine. This gives a maneuvering ability not possessed by any other ditcher. It is possible to turn the Barber-Greene completely around on top of a flat car.

Combined with this tractor-crawler is a vertical digging boom that digs straight down. No hand shoveling is required to start this boom. Simply start the engine, drop the boom and it digs straight down to full depth without it being necessary to start the crawlers in their forward motion.

These two features make it possible to dig a 50-foot radius curve or follow easily any curves in which the pipe may be laid. The crawlers are 14-in. wide, so that there is practically no danger of the machine banging down on the pipe.

Already this machine has been proved successful in pipeline digging, completing a 11-mile job near Joliet for the Prairie Pipe Line Company in a month's time, and a similar one near Kansas City of about the same length, in practically the same time.

Other users in all parts of the country find the vertical boom and rugged strength of the Barber-Greene Ditchers are cutting trenching costs and speeding up the work in practically every type of ground. A number of the more interesting of these are collected in our new catalog D-10. Send for a copy. No obligation.

BARBER-GREENE COMPANY—*Representatives in 50 cities*—615 W. Park Ave., Aurora, Illinois

BARBER GREENE

Portable Belt Conveyors — Self Feeding Bucket Loaders

Coal Loaders . . . Automatic Ditch Diggers . . Coal Feeders

Say you saw it in The Oil Weekly

Production In California Continues to Gain

Another increase reported for last week with new wells coming in and many wildcats being started

By W. E. Green
Staff Representative

Los Angeles, Calif., Feb. 28.—Production in Los Angeles Basin was up the past week about 4000 barrels daily and it is expected the entire state will show a net increase around that amount. Old wells are being worked over, long stroke pumps are being installed and the production is being held up in many ways.

During the past week, interest was centered to a large extent in the Rosecrans field, in the northwest section where one well blew in, making about 20,000,000 cubic feet of gas with a lot of mud and water. This well, Geo. F. Getty's Athens 2, blew in at 11 o'clock the morning of February 23 and ran wild until it choked up Thursday morning. It is believed that the hole is ruined and there is the added trouble of impending suits on the part of residents in that area, some of whom had to leave their homes. Mud and slush covered the area for hundreds of yards in all directions and wells nearby had to be shut down, due to fire danger.

Two Good Wells Wet

In the same general area of the Rosecrans field, E. J. Miley brought in two wells early in the week, making a total combined production of about 6000 barrels, but as both wells showed salt water, it was necessary to kill them and recement the water strings. The Marine Oil Company's No. 33 came in for 2500 barrels of 35.5 gravity oil at 4409 feet and the Tidal Oil Company's No. 1 was also a completion at 4428 feet for 250 barrels of oil, similar to the Marine well.

Oil Sand at 6481 Feet

The extreme southeast edge well of the Rosecrans field, Union's Gordon 1, found an oil sand at 6481 feet and at 6546 feet was still in this sand. This would indicate that there is a possibility of this well making a producer, and it is expected it will be high gravity oil. The western edge well, General Petroleum's Amstoy 1, has been bailing with bottom of hole at 6666 feet. After bailing down to about 4000 feet, the hole was left standing for a time, and filled up 2700 feet, of which 700 feet was oil. It has no kick and there is little chance of a flowing well, although there is a chance it can be pumped.

The Rosecrans field now has a total production of about 15,000 barrels daily, and since so many wells are drilling it appears that the production will be increased to about 25,000 barrels daily in the next five or six weeks. The producing wells in the southeastern part of the field produce oil of better than 40 gravity, while the wells in the northwest area produce oil of 35 to 37 gravity. The wells in the northwest area stand up better than the higher gravity producers.

Another Ventura Well

The Ventura Avenue field in Ventura County furnished one completion the past week. Shell Company's Taylor 7 came in for 1175 barrels of 30.4 gravity oil with bottom of hole at 4646 feet. This well is some distance from the Associated wells which came in for a greater production at a greater depth, but the Shell lease is on lower ground, and for that reason the subsea level is about the same, and likely producing from the same pay formation. The Shell ran in 360 feet of 4½-inch perforated pipe and the well is flowing through 9/16-inch bean or choke.

The Gilmore Oil Company has secured 154 acres in Cat Canyon district of Santa Barbara County, adjoining the Santa Maria field, at a reported consideration of close to quarter of a million dollars. The Gilmore Company had previously secured several tracts in this area and is now drilling three wells. At least ten new wells are now drilling in the vicinity of the Gilmore lease. Other companies have become active recently in this area.

Blocking Up Acreage

Several companies are blocking up acreage in the Newport area near Santa Ana, and the Standard expects to start drilling a wildcat in this area in the next two weeks. It is reported that lands in this section command monthly rentals of from $5 to $10 an acre. There is little land in this district left to lease and several wells will be drilling this district by middle summer. At Newport, on Pacific water front, several wells are now producing a very heavy oil from a shallow depth.

The Union Oil Company has set surface casing at 1475 feet in its Newlin 1, a wildcat being drilled at Ocean Park Heights, the new district between Los Angeles and the Pacific Ocean. Practically all of the land in this district is under lease, with practically every large company holding leases in various sizes. The other companies are waiting to see what the Union will find before starting their wells.

The wildcat operations in California this summer will exceed the activity of last year. There is a chance that production will be held up in the state throughout the year, considerably higher than many of the statisticians have estimated and predicted.

Joe Regan, president of the Regan Forge and Engineering Company, Los Angeles, Calif., departed last week for a trip hitting the high spots in Colorado, Wyoming, Texas, Oklahoma and probably other oil states.

Wildcats Show Possible Extensions at Luling

Luling, Texas, Feb. 28.—With favorable showings reported in several Guadalupe County wildcats local operators believe several extensions will be made to the Luling field within a few days.

About two-and-one-half miles northwest of New Berlin, on the Kock ranch, J. M. Davis and associates are coring in the Austin chalk, according to reports. West of the proven field, on the W. W. Pryor lease, Ross Green is drilling to a deeper formation, and about midway between the Ross Green test and the Luling field, the Yorks Creek Oil Company is drilling at 1885 feet in the Eagleford formation, after having made a showing of oil during the week.

A syndicate of Texas men will develop the old Cartwright lease in Caldwell County. The United North and South Oil Company formerly attempted to develop the lease and completed three dry holes, which led it to abandon the land.

J. C. Tipton has been elected a director of the Galena Signal Oil Company, succeeding to the vacancy caused by the resignation of H. S. Skinner. Other directors have been re-elected.

Smackover Deep Production Wide in Extent

Indicated possibility of revival of drilling boom to reach new deep pay in Arkansas field

El Dorado, Ark., March 2.—The proven area of the newly found deep sand in the Norphlet heavy oil sector of the Smackover field was extended two and a quarter miles west and a half mile northeast by the completion last week of two flowing wells from the 2400-foot sand. Broderick & Calvert's No. 2 Bradford, located in the northwest quarter of the northwest quarter of section 8-16-15, Union County, two and one-quarter miles west of the Lion Oil and Refining Company's deep sand discovery well in section 3-16-15, came in on Friday with an initial production of 750 barrels of pipe line oil per day from eight feet of pay sand logged at 2405 feet. Hickman et al's No. 6 Graves, located along the east line of the northwest quarter of the southeast quarter of section 3-16-15, about a half mile northeast of the Lion wells, was completed yesterday with an initial flow of 400 barrels of clean oil per day from eight feet of sand at a total depth of 2368 feet.

Thus, the productivity of the 2400-foot sand has been proven over an area two and a half miles wide, east and west, and there is now no doubt but that another impetuous drilling campaign is to follow. Numbers of drilling rigs are being concentrated in the Norphlet area, in anticipation of a deep sand development campaign. As the Nacatoch sand wells are still producing oil in commercial quantities, and therefore can not be economically drilled to the new sand, it seems assured that new wells must be begun at the top of the ground, and that each lease will have two sets of wells on it, one producing from the 2000-foot sand and another from the 2400-foot level.

Deep sand development operations are now being conducted by the Lion, Texas, Gulf, Ohio, Houston, Bradstreet, Sunny Jim, and Keen & Woolf companies, and by Clark & Greer, Crawford & Sebastian, Broderick & Calvert and George & Jones. In addition, it seems certain that offset obligations will force an immediate commencement of drilling operations on the part of the Standard Oil Company, Amerada Petroleum, Gladys Belle Oil Company, Roxana Petroleum Company, Phillips Petroleum Company, Crusader Oil Producing Company, Texas Pacific Coal and Oil Company, Unity Petroleum Company, Snowden & McSweeney and others.

George & Jones are to drill the plug today in another important deep sand test, and the Unity Petroleum Company has cemented 8-inch casing at 2215 feet in its Roper No. 6, in section 3-16-15. It is said that the Lion Oil and Refining Company will proceed at once with the development of its extensive holdings which have been proven by its deep drilling operations, on which, as will be recalled, is located the famous Murphy gas crater, discovery well of the Smackover field.

It is rumored that several really deep wells are destined to be drilled soon in the Smackover field, where both the Woodbine and Trinity sands remain undeveloped. The Gilliland Oil Company has cemented 8-inch casing at 2459 feet in a proposed deep test located near the town of Louann, in the light oil section of the field.

Considerable interest attaches to a report that business men of the town of Louann are making preparations to resume drilling in the famous Jimmie Cox well, in the northwest quarter of section 30-17-15. This well was regarded as a rank widcat when it was begun, prior to the westward extension of the light oil area. Now, a number of producing wells are located within two and a half miles of it, and the western boundary of the productive area has not yet been found. The Cox well was abandoned at around 2000 feet, and the present plan is to deepen it to the Louann sand, which yields light oil at around 2300 feet.

Senate Committee to Work On Probe During Vacation

Washington, D. C., March 3.—Authority for the continuation of the investigation by the public lands committee of the senate of the Buena Vista, California, oil lease to the Honolulu Oil Company, so that the committee might prosecute its inquiry during the period before the convening of the next congress, has been asked of the senate by Senator Walsh of Montana. The investigation of the Honolulu lease was authorized by the senate some time ago, but Senator Walsh explains that the committee has been so busy that it has been unable to complete its work. This inquiry was part of the study to be made by the public lands committee of the various leases of government oil lands ordered by the senate during its consideration of the Tea Pot Dome scandal.

Six Producers Added In Jim Hogg County

Laredo, Texas, Feb. 28.—Six producers were added to the Henne, Winch and Farriss oil field in Jim Hogg County last week. The new wells are as follows:

Plateau-Wheat's No. 6, block 15, survey 26, Las Animas grant, swabbing and flowing 800 barrels; Magnolia Petroleum Company's No. 3, block 1, Oscar Thompson ranch, 200 barrels; Witherspoon Oil Comapny's No. 2, block 16, survey 26, Las Animas, swabbing and flowing 600 barrels; No. 5 of the same company and on same block, swabbing and flowing 400 barrels; O. W. Killam's 3, block 2, survey 256, flowing 200 barrels; Texo Oil Company's No. 2, block 16, survey 255, flowing 200 barrels.

There are several other wells on top of the sand which are expected to drill in at any time.

During January 252,180.34 barrels of Mirando crude was shipped out of Mirando City. Of this amount 88,773.18 barrels were taken from the Henne, Winch and Farris pool.

Some time ago Elliott and associates took over a half interest in the 10,000-acre lease, together with a shallow oil field in the southern part of Zapata County. The consideration was a small amount of cash and drilling obligations. Some of the old tests have been cleaned out and put on pump and it is understood that 75 more tests will be drilled shortly.

The water situation in the Mirando district is getting to be a serious problem. Many of the wildcats and drilling wells in the fields are shut down.

Roy M. Franks, former head of the land department of the Producers and Refiners Corporation, has resigned to become head of the Tulsa office of Ramsey Brothers and Franks. Mr. Franks was with the Producers and Refiners Company six years, going to that company from the land department of the Oklahoma Natural Gas Company.

Oscar Howard, Southern California drilling contractor, is being congratulated by his friends on the record he made in the new Inglewood field, where he drilled a hole below 1800 feet and set casing in one week.

Lord Bradbury of Winsford, England, has been named ex-officio director of the Anglo-Persian Oil Company, Ltd., in the place of Viscount Inchcape, who has resigned.

L. C. Ritts of Tulsa, treasurer of the company, has been elected a director of the Oklahoma Natural Gas Company, succeeding the late E. P. Whitcomb. Other directors have been re-elected.

Mid-Continent Firm, West and East Strong

Wyoming refiners offering premiums while Pennsylvania sees $4 crude; refined quiet

By J. Kent Ridley
Staff Representative

CONTINUED less active demand for gasoline from both domestic and export sources and the softening of prices incident thereto has been reflected in lower premiums offered by refiners except in a few places where better grades of crude are in demand. However, the crude market is decidedly steady at prevailing posted prices, and there is no evidence of a let up in the demand.

In Wyoming the needs of local refining plants has brought about the inauguration of premiums which bring the price in that section to the levels of similar grades in the Mid-Continent, whereas heretofore there has existed a differential of 40 cents per barrel, accounted for by the purchasers in that the remoteness of the region from consuming points adds that much to transportation charges. Lessened amounts of crude oil available for the refining capacity of the plants near the fields has resulted in these plants being compelled to offer inducements to get oil for their requirements in competition with the dominent buyers who transport their purchases to refineries farther east.

Government compilation of statistics for the year 1924, made public by the Bureau of Mines during the week, show that the refineries of the country ran to stills last year a daily average of 1,758,796 barrels. This accounted for a total during the year of 597,954,123 barrels of domestic and 45,765,226 barrels of foreign crude.

While there is no noticeable let up in the demand for crude oil in the light oil area of the Mid-Continent, and especially in North Texas, Oklahoma and Kansas, prices being offered by independent buyers this week differ but slightly from those being paid last week. This statement holds true except in the higher gravity pools where competition is rife and premiums have been boosted as counter moves on the part of the smaller refining interests.

Such is not the case, however, in the Appalachian region and in the Rocky Mountain States, where buying may be stated to be even more active now than heretofore. In Montana and Wyoming premiums are being raised as further inducements for new connections and in the East independent refining interests are seeking additional crude supplies at a premium that has been figured on the basis of $4 crude, which, operators in that section of the country believe, is just around the corner if not already actually in sight.

The crude situation in Wyoming at this season is unusual in that some of the major refining interests operating in the Rocky Mountain States are beginning to offer some real competition to the Midwest Refining and Ohio Oil companies, dominant price factors in that area. Salt Creek crude is in good demand and producers of that grade are understood to have been offered a price of $2 per barrel, which is 40 cents above the present posted quotation. Elsewhere in Wyoming producers are being approached with a proposition to sell their crude at a price on a parity with Mid-Continent levels of similar gravity. This is having the effect of stimulating producers to renewed efforts and at the same time presages an unusually active spring and summer in the Rocky Mountain territory as well as indicating a prosperous season for producers and refiners alike. Companies who are understood to be unusually active in soliciting Salt Creek crude include The Texas Company, Producers and Refiners Corporation and the White Eagle Oil and Refining Company.

In Oklahoma and Kansas producers of high gravity oils are as popular as ever in the Garber pool in Northern Oklahoma. Sinclair Oil and Gas Company, dominant producer of this grade of crude, is selling at a price of $2.85 per barrel, while other producers in the field are disposing of their oil at around $2.75. Champlin Refining Company is paying $2.55 for Tonkawa crude for which the Tonkawa Petroleum Corporation (Constantin interests) are paying $2.65. Independent refining interests in the southern part of the state, particularly in the Ardmore and Duncan areas, are now going after crude in a spirited way and are paying a premium in most instances. The fact that Garber is commanding the highest price of any grade in Oklahoma at this time lends additional interest to the new deep tests that are under way in that pool. Roxana Petroleum Corporation has completed a deep well in the field and Sinclair Oil and Gas Company is completing an offset. The Sinclair test is an old gas well. In the event sufficient deep production is developed in this old field it will exert a material bearing on the crude market in the Mid-Continent in that more high gravity oil will be available in an area that is well situated from the independent buyers' standpoint.

Movement of crude oil North and East from the Mid-Continent and Middle Western fields continues brisk with indications of still further increases in traffic with the coming of open weather. The major crude oil transporting companies in these sections are reporting increased traffic which would indicate that a divergence of crude movement to rail from that of water is taking place. This situation will react to material benefit to both Mid-Continent and Middle Western producers.

Prairie Pipe Line shipments for the month ending February 28 was 4,322,556 barrels.

Texas Premiums Lower

The crude market in North Texas maintained a steady tone during the past week, with independent refiners paying an average premium of 15 cents per barrel above the posted price for spot crude. Premiums are now lower than at any period since the Wortham field was disproven as a threat to the crude price structure, but lower premiums do not indicate a reaction in the strength of the crude market in this instance, as major pipe line companies are conducting an active campaign for new crude connections in all the fields served by their lines. The recent reduction of premiums by independent refiners was made necessary owing to gasoline prices declining nearly a full cent since the last crude raise, while fuel oil, kerosene and other refined products have not advanced in proportion to crude lately. Therefore independent refiners have been forced to curtail their premium offers in order to break even or show a profit on their operations, and lower premiums were forced by reducing spot crude purchases. A lull in the movement of gasoline to domestic and export buyers since the middle of February brought on the reduced price quotations for this commodity.

Interest aroused among producers and refiners throughout the Mid-Continent district over the widely heralded threat of a new flush field being uncovered by wildcats drilling on the Bazette structure in the fault region of East Central Texas was gradually subsiding early this week upon receipt of the news that the first wildcat to drill into the top of the Woodbine sand encountered it structurally low in comparison to other fields in the district. Penn and associates' Absher 1 began drilling into the Woodbine sand early this week, and took core at 3086 feet, with only slight traces of oil found in the bottom of the core. Drilling was sus-

pended at this point to set liner as protection against caving, as casing had been cemented at 2950 feet. The other wildcat is being drilled by the Humphreys-Boyd Oil Company on an adjoining lease, and is rigging up cable tools to drill in after setting casing at 3010 feet. This test will not be drilled in until late this week.

The lease play at Bazette was staged by major companies, and prices paid for lease protection around the wildcats soared to record levels before all the close in acreage was taken. Confidence shown by the leading companies in this area gave rise for the predictions that Bazette offers possibilities of making an oil field. In the event Bazette fails to come through with an oil completion from either of the two wildcats nearing completion, the high gravity crude market in Texas will be without a single threat to its present favorable condition.

California

The petroleum market in general in California is holding its own and has a tendency of being rather strong. There was a break in the local Southern California retail gasoline the past week when one large company used newspaper space to announce the sale of coupon books at a discount about equal to a discount of 1 cent a gallon. This was the Union Oil Company. The following day practically all of the larger companies announced similar plans, thus in effect cutting the retail price 1 cent.

But the bootleggers, who have been selling from 1 to 3 cents under the regular market, made no change in their prices. In fact, they have the price about as low as they can go and make ends meet. The Julian Oil Corporation started selling treated gasoline last week at 3 cents above the market, making rather wide claims for it. The method used in treating the gasoline is the invention of a California man, but it is not known publicly what is being used. The Julian publicity has increased the sale of this gasoline.

The crude market is strong at present prices, with the opinion general that another raise can be expected during March. It is reported that there will be no raise while the legislature is in session. Also property is assessed in California as of March 1. A raise soon after March 1 would not be surprising. All other products are holding up in the face of a good business.

Refined Oil in 1924

The production of gasoline in the United States during the year 1924 amounted to 8,959,680,220 gallons, the largest annual output in the history of the industry, states the Department of the Interior in reviewing statistics compiled by the Bureau of Mines. The figure exceeds by 1,403,735,077 gallons, or 18.25 per cent, the previous high record mark for annual production, set in 1923.

Imports of gasoline during 1924 amounted to 145,022,774 gallons, a decrease from 1923 of 46,290,766 gallons, or 24.20 per cent. Exports were 1,219,474,374 gallons, an increase over 1923 of 348,357,760 gallons, or 28.57 per cent.

Domestic demand for gasoline in 1924 is reported as 7,780,625,085 gallons, exceeding the former high record set in 1923 by 1,095,589,805 gallons, an increase of 16.07 per cent. In 1924 domestic demand comprised 86.84 per cent of production as compared to 88.47 per cent in 1923.

Stocks of gasoline on hand the first and last of 1924 were 1,074,899,650 and 1,179,503,185 gallons, respectively. This represents an increase in stocks during the year of 104,603,535 gallons, or 9.73 per cent.

The production of kerosene during 1924 was 2,521,108,564 gallons, an increase of 7.04 per cent.

Exports of kerosene amounted to 919,478,743 gallons, an increase over 1923 of 64,923,792 gallons, or 7.60 per cent. Domestic demand for the year was 1,549,357,253 gallons, an increase of 3.52 per cent. Stocks on hand at the first and last of the year were 283,195,667 and 338,825,779 gallons, respectively.

Gas and Fuel Oil

The production of gas and fuel oils during 1924 was 13,459,968,845 gallons, an increase of 11.17 per cent. Imports and exports were 542,927,170 and 1,561,740,042 gallons, representing increases of 5.21 per cent and 11.42 per cent, respectively, over 1923. Domestic demand during the year was 12,285,681,746 gallons, an increase of 11.60 per cent. Stocks of these oils on hand the first and the last of the year were 1,515,034,711 and 1,670,508,938 gallons, respectively, representing an increase during the year of 10.26 per cent.

The production of lubricants during 1924 was 1,154,926,677 gallons, an increase of 4.96 per cent. Exports were 382,343,409 gallons, an increase over 1923 of 30,744,362 gallons, or 8.74 per cent. Domestic demand during the year was 758,484,087 gallons, an increase over 1923 of only 2.51 per cent. Stocks on hand the first and last of the year were 242,785,070 and 257,336,238 gallons, respectively.

The production of paraffin wax during 1924 was 516,490,680 pounds, an increase over 1923 of 10.38 per cent. Exports during the year totaled 382,820,015 pounds, an increase of 16.08 per cent. Exports during the year comprised 74.12 per cent of the production. Domestic demand during the year was 221,577,294 pounds, an increase of 16.69 per cent. Stocks on hand at the first and last of the year were 164,706,430 and 89,666,408 pounds, respectively, a decrease during the year of 45.56 per cent.

During the year 1924 the refineries of the United States ran to stills 597,954,123 barrels of domestic crude oil and 45,765,226 barrels of foreign crude oil, a total of 643,719,349 barrels. This represents a daily average of 1,758,796 barrels. The average number of refineries reporting to the Bureau of Mines each month was 265, or an average daily crude oil capacity of 2,236,055 barrels. Thus the refineries operated on an average of 78.7 per cent of their aggregate capacity during 1924.

'Economical' Prosecution Costs $200,000

Washington, D. C., Mar. 2.—An appropriation of $100,000 for use by the Government in prosecuting the oil lease cases is provided by Congress is the second urgent deficiency bill to carry the Government counsel over the period between the two sessions of Congress. This makes a total so far appropriated for this work of $200,000, the first $100,000 being provided when the President was authorized to employ special counsel.

The prosecutions are being carried on with the greatest possible economy, Owen J. Roberts, who, with Senator Atlee D. Pomerene, is conducting the Governement's cases, told the members of the House committe on appropriations when the bill was under consideration, but most of the $100,000 originally provided has been expended, and heavy expenditures are expected to be incurred during the summer, when the cases come up for trial.

The counsel themselves are charging merely nominal amounts for their fees, but a large amount of traveling has been necessary, the bringing of witnesses to testify in the cases will be very heavy, and it has been necessary to print and buy voluminous briefs for the various cases.

The measure also carries $42,000 for use of the State Department in defraying the expenses of a conference of maritime nations to be held in Washington to consider the adoption of effective means for the prevention of oil polution of navigable waters. Eight thousand dollars of this sum is to become immediately available and is to be turned over to the Bureau of Standards for use in examining the behavior of proper devices for the separation of oil from ballast water on board vessels at sea and for laboratory experiments.

E. R. Perry, formerly vice president and general manager of Cosden & Company with headquarters in Tulsa, now is general manager of the Arkansas City Refining Company at Arkansas City, Kansas.

W. T. Hazel, sales manager of the Parkersburg Rig & Reel Company, is away from company offices at Parkersburg, West Virginia, on a tour of the Mid-Continent and other fields where the company has branches located.

Bazette Shows Salt Water; Heavy Gas Flow

Probability of new flush field along fault materially lessened by failure of Penn well

By H. H. King
Staff Representative

Corsicana, Texas, March 3.—Heavy gas production accompanied by a flow of salt water was obtained when the first of the two widely advertised wildcats on the Bazette structure in the East Central Texas fault region penetrated the upper series of the Woodbine sand. This well was drilled by Bob Penn, W. C. Windsor and associates on the W. P. Absher farm to a total depth of 3086 feet Monday before setting liner below casing seat at 2950 feet, and blew in shortly before noon Tuesday while bailing with an estimated flow of more than 15,000,000 cubic feet of dry gas and flow of water. The owners of the well were prepared for heavy gas production, and were in full control of the well shortly after it cleaned the hole. Preparations are being made to mud off the gas flow, and drill deeper in search of oil production in the lower series of the Woodbine, while in the meantime interest at Bazette has shifted to the Humphreys-Boyd Oil Company's nearby wildcat on the A. T. Walthal five acre lease. The Walthal test cemented casing at 3011 feet, with a total depth of 3014 feet (S. L. M.) after going into hard shell formation at 3007 feet, and will start drilling in with rotary early Wednesday.

Failure of the Penn well to show oil in any appreciable quantity after topping the Woodbine sand near the 3050-foot level and penetrating same to 3086 feet has materially reduced the possibilities of a big flush oil field resulting from either of the two wildcats now testing the sand, while in the meantime the Humphreys-Boyd Company's test is an unknown quantity. The presence of heavy gas production in the Penn well compares favorably with the results obtained last May when Humphreys' Connor 1, R. D. Newman survey, located 2½ miles northeast of the Penn well, blew in making nine million cubic feet dry gas after drilling 274 feet of Woodbine formation to 3190 feet. Since the Currie and original Richland pools, second and third producing areas, respectively, uncovered in the fault region, furnished oil wells from tests that blew out heavy gas production and water from the top of the Woodbine pay when completely drilled in, the owners of high priced leases around the Penn well are pinning their hopes on this condition existing at Bazette. The Humphreys-Boyd Oil Company has abandoned plans to standarize its wildcat to drill in, owing to the presence of heavy gas production and difficulty in keeping a gas well under control.

Woodbine Lower

Both of the wildcats at Bazette are located close to the fault, and situated about 1500 feet apart. The logs of both wildcats indicates that the Woodbine sand formation is lying lower structurally than in any of the five fields proven for oil production to date. The Richland field, which is the smallest of the five, also has the lowest structure from a sea level standpoint, and furnished a number of wells that produced only gas and water.

Penn's well on the Absher lease established a record for fast widcat drilling in reaching the casing point at 2950 feet in less than 10 days after spudding. It passed through the Austin chalk at 2668-2705 feet, with a surface elevation of about 399 feet, and logged only 37 feet of chalk account of being in the fault. Humphreys-Boyd Company's Walthal logged a full thickness of chalk, with soft chalk beginning at 2127 feet and hard chalk at 2168-2644 feet. This test has a surface elevation of 384 feet, and will pick up the Woodbine slightly higher than the depth at which it was found in the Penn well.

The gas strike made by the Penn well will result in more wildcats being drilled on the Bazette structure, even though deeper drilling proves futile on the two wildcats now underway, as several million dollars has been spent for leases and development work in this section of Navarro County, and the major companies holding this high priced acreage will finance additional exploration work before surrendering their leases.

Henderson County

Tracing the approximate course made by the Balcones-Mexia fault zone to the northeast of the Bazette area with the aid of core drills, the major lease buyers in the fault region have lately invaded the Buffalo area in northwestern Henderson County, where attractive prices are being paid for general lease protection on a narrow strip of territory extending from the town of Buffalo to the south end of Humble's high priced wildcat block near Mabank in southeastern Kaufman County. R. R. Penn-W. C. Windsor and associates have made location to drill the first deep test on the G. E. Murphy land, Jas. M. Gardner survey, as was published last week, while Humble has made tentative location for its first test on the Mabank block near the Henderson-Kaufman County line. However, Humble and Penn et al are heavily interested at Bazette, and probably will not push the exploration work on the Mabank and Buffalo structures until Bazette is proven dry, or drilled up in the event of an oil strike.

The interest shown lately by Humble, Gulf, Humphreys-Boyd, Pure, Marland, Atlantic and several other major buyers of lease protection in the fault zone towards the Henderson County area between Buffalo and Mabank has attracted many other companies and individuals, with the result that lease men are now bidding against each other for the remaining "open" acreage along the narrow strip of territory. Leases that could have been acquired for $10 and less per acre six weeks ago are now commanding prices ranging from $25 to $200 per acre, and all close in stuff around the proposed Penn location, has been taken solid. Since Humble's Mabank block is almost solid, very little opportunity has been offered to outside companies to get protection, except to the north and to the southwest towards Penn's location.

Kaufman County added another deep dry hole to its long list of failures last week when Marland Oil Company's Kenshale-Arnold 1, B. S. Newman survey, was abandoned in red rock at 3580 feet after encountering the top of the Woodbine at 3389 feet and showing gas bubbles on the slush pit while drilling the upper part of the sand. Marland's wildcat in Hunt County on the P. Bauknight-Fee land, Jas. Hamilton survey, block 22, went out of the Austin chalk at 2223 feet last week, after topping the same at 1880 feet, with a surface elevation of 480 feet. George Lyles and associates' wildcat on the D. B. Meadows farm, James Levins survey, in southeast part of Hunt County, will probably be abandoned this week as a failure, as it was drilling in red shale at 3440 feet, according to last reports, after logging the top of the Woodbine sand at 3180 feet.

Hopkins County

G. T. Rheubotham and associates have taken over the drilling block assembled by the Bar-Tex Drilling Company near Pine Forest in Hopkins County, and have increased the size of the block to about 12,000 acres. A derrick has been erected on the Mary J. McClure farm, D. Waggoner survey, and plans are to start drilling March 15,

with contracts calling for a 3500-foot test. W. K. Kellogg and Roxana Petroleum Corporation have made location of the Dollie Cork farm, R. E. Matthews survey, to test out a large block of leases held by Roxana on the Hopkins-Franklin County line. The Arkansas Fuel Oil Company's wildcat test on the J. A. Dickson farm, Thomas Willison survey in upper Franklin County, picked up the top of the Woodbine sand at 2956 feet after drilling through cap rock, and late last week was preparing to take core before drilling deeper.

Flowing warm salt water from sand at 2460 feet, the wildcat test being drilled with cable tools by Magnolia Petroleum Company on the George Antone farm, M. V. Delgado survey near Talcy in Titus County, goes on record as one of the "wettest" holes drilling in East Texas. This wildcat encountered a series of water sands above and below the 1000-foot level, and experienced great difficulty in getting a shut off with casing.

Gulf Production Company has acquired an undivided half interest in a block of 26,000 acres of leases on the Hopkins-Franklin County line from the Texas Unity Oil Company for a cash consideration of $50,000, and Gulf agrees to drill one test free. Gulf is to make a number of shallow core tests before selecting its first location.

How Drilling Methods Are Being Improved

(Continued from page 40.)

and less subject to crystallization than carbon steels.

For preventing cutting of oil and forming emulsions, the large ball in the standing valve is in general use. The large ball opens under greater well vacuum, although the larger ball is heavier. But we now have with us a new product—a real triumph—in the hollow alloy steel ball with its lighter weight, that will almost float.

That this hollow ball will enable the use of still larger balls is evident and the importance of this in pumping high vacuum fields can not be underestimated.

The steel pumping derrick is everywhere replacing timber. The lumber for derricks must be of the best quality heart, to compete in service with steel derricks.

General

The useful life of equipment is not only limited by wear or breakage, but also by amortization. If a job can be done more cheaply with a new tool or appliance, then amortization has ended the useful life of the older tool. Constant improvement in well drilling and production methods calls for a higher rate of amortization than in an industry of a settled, older nature, but even if amortization rates are high, old antiquated equipment is more expensive.

South Liberty Occupies Limelight in Gulf Coast

Houston, Texas, March 4.—South Liberty continues to hold the most prominent position in the limelight of coastal oil activities, and operators believe results of drilling there apparently indicate, so far as they have gone, that the field will rank high among the producing areas of Southern Texas and Louisiana.

Since the completion of Mills Bennett's Pickett 1-B on February 19, three producing wells with an aggregate flush output estimated at 4250 barrels have been added to the new field, and several additional wells are expected to be brought in within the next few days.

On February 26, No. 1 Harrison of the Oxford Oil Company was completed from a sand at 3454 feet for an initial yield of 900 barrels of 22.8 Baume gravity oil. Although the well is located only 36 feet southeast of the Pickett 1-B, the pay was encountered about 100 feet below that found in the Pickett 1-B. Due to breaks in the formation, two sets of screen were set in the well. A joint of blank pipe was set in the bottom of the hole. Just above it a joint of screen was set, followed by two more joints of blank and three joints of screen.

Three days after the Oxford's well was completed, the Vacuum Oil Company brought in the largest well that has been completed in the field so far. Total depth of the Vacuum's Barrett 1 was 3432 feet, with two starta of sand filling the gaps between 3318-3366 feet and 3401-3431 feet. The sands were separated by 35 feet of gumbo and shale. The first 12 hours after completion the well flowed 1700 barrels of oil, and a 24-hour gauge following the first 12 hours registered a production of 2900 barrels.

Barrett 1 is 18 feet south and 17 feet west of the northeast corner of the Vacuum's 10.44-acre Barrett lease. It is a south offset to Mills Bennett's Pickett 1-B.

The third producer added to the South Liberty field during the week was Mills Bennett's Pickett 2-B, which came in the night of March 3 for an initial production estimated at from 400 to 500 barrels. Unlike the other wells, which are flowing 22.8 gravity oil, the Pickett 2-B is flowing 38 gravity oil, due perhaps to the fact that it is nearer the alleged edge of the dome. Completion depth of the well was 3382 feet, with 21 feet of unbroken sand immediately above. One joint of screen was set.

Before the end of the week, the Humble Oil and Refining Company is expected to complete its Riviere 2, which is drilling in sticky shale below 3420 feet, and Mills Bennett is expected to complete the Pickett 3-B in which casing has been set at 3500 feet after a sand was picked up at 3516 feet.

Show Reported in Well 15 Miles From Luling

Lockhart, Texas, Feb. 28.—A strong showing of oil and gas in Storey and Lefevre's Brewer 1, wildcat being drilled 15 miles northeast of the proven area of the Luling field and 11 miles northeast of Lockhart, has caused considerable excitement among Caldwell County operators during the past week.

At latest reports, the well had been drilled to the Taylor marl at 1400 feet and was being mudded to prevent a possible blow-out.

The test is unusual in that the pay stratum is reported to have been found above the Austin chalk, because of the seeming absence of sulphur water, and because oil coming from it has tested lighter than that produced in the Luling field.

For three years, major companies and independents have been leasing property in the vicinity, and several wildcats have been drilled, but the Brewer well is the first of these tests to have made a good showing of oil. As a result, operators are leasing all available acreage for miles around the test.

Completion of the test is expected within a few days.

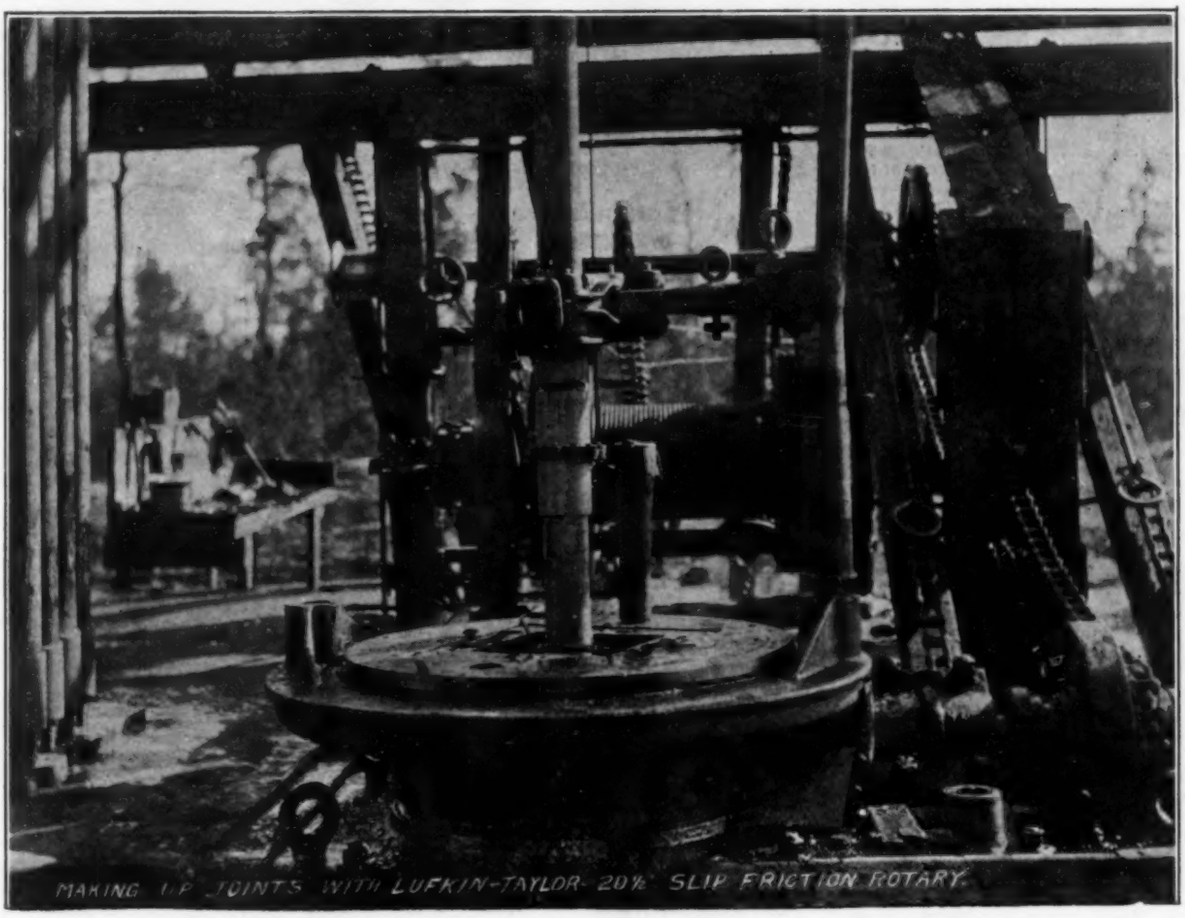
Two Good Wells Stimulate Drilling in Lower Archer

Wichita Falls, Texas, March 3.—Two outside locations on the east side of the Carey field in lower Archer County scored 2500 barrels of flush production during the past week. These two completions were brought in by White Brothers and associates on the Walter Kunkel farm from the usual 1100-foot oil sand pay, which has won a reputation of being the most consistent source of flush production in the county. Pat and Tom White hold lease on 54 acres, and all three of the wells completed to date on the west end of the lease have registered a high initial production. The first well was brought in early last month flowing 1000 barrels natural at 1156 feet, and an east offset known as No. 3 Kunkel was completed late last week with a similar production from sand at 1137-55 feet. The latest completion was made early this week after drilling broken sand pay at 1128-37 feet and oil sand at 1137-62 feet with an initial flow of 1500 barrels natural. This big well is in the northwest corner of the lease. The performance of the wells has stimulated development on adjoining leases and to the east in advance of established production.

Difficulty experienced in obtaining water for drilling has curtailed wildcat drilling in Young and Archer Counties, and no wildcat oil strikes of any importance have been made in several weeks. The Carey and Harmel fields are setting the pace for drilling operations in Archer County, and this county reported 167 operations at the close of February, including 106 active tests.

FACT NUMBER 2

About Lufkin-Taylor Make and Break Rotary



MAKING UP JOINTS WITH LUFKIN-TAYLOR 20½ SLIP FRICTION ROTARY.

The Lufkin-Taylor "Make and Break" Rotary Stands Alone—It Has No Near Relatives

Its not easy to put brains into mechanical equipment, yet we have many devices in every walk of life that we use almost unknowingly every day that save our gray matter and make life a pleasure.

The greatest objection to making up or breaking joints by power on a Rotary was the fact that the driller could not regulate his power to prevent burning threads, which is largely true on any other rotary except the Lufkin-Taylor, which has a slip friction that absolutely will slip should threads "gall" or get crossed, for it is set to make up a joint just so tight and no more—IT'S INFALLIBLE. THE SLIP FRICTION PREVENTS WRENCHES BREAKING AND FLYING IN EVERY DIRECTION ENDANGERING THE OPERATORS.

This is a most essential feature, is worth the price of the machine alone, there is nothing so far been developed that takes its place on any rotary.

(Other facts will follow)

For further information write or wire

Lufkin Foundry & Machine Co.

LUFKIN, TEXAS

New York City, Woolworth Bldg. | Los Angeles, 512 Commercial Exchange Bldg. | Houston, 806 Carter Bldg. | Tulsa, Okla., Roberts Bldg.

AVERAGE DAILY PRODUCTION FOR U.S.

Oklahoma

Fields—	Past Week	Prev. Week
Tonkawa	97,070	94,570
Burbank	56,705	56,965
Bristow	48,390	50,000
Cromwell	38,645	39,145
Gilcrease-Papoose	34,070	37,690
Osage (outside Burbank)	33,845	32 020
Okmulgee	23,820	24,000
Cushing	22,825	21,690
Hewitt	16,435	16,835
Wewoka	11,500	11,080
Otoe	9,155	8,730
Braman	2,320	2,365
Stroud	3,210	2 845
Other fields	82,300	81,915
Totals	480,290	479,485

Kansas

Greenwood	23,180	21,690
El'dorado	14,800	15,900
Rainbow Bend	15,000	14,000
Elbing and Peabody	6,285	7,265
Fox-Bush	3,465	4,470
Augusta and Douglas	3 345	2,885
Blankenship	2,530	2,600
Florence and Covert	2,050	2,235
Other fields	17,210	18,420
Totals	87,865	89,465

Louisiana

Haynesville	14,575	14,860
Caddo Light	8,960	9,595
Cotton Valley	8,290	8,190
Homer	6,900	6,855
Vinton	5,725	5,660
Bull Bayou	4,550	4,550
Bellevue	3,500*	3,250
Caddo Heavy	2 125	2,265
Evangeline	955	950
Elm Grove	575	570
Edgerly	460	465
Lockport (Lake Charles)	350	640
Anse La Butte	20	20
Totals	56,985	57,870

Arkansas

Smackover Heavy	60,575	60,900
Smackover Light	32,520	32,110
El Dorado	9,580	9,700
Stephens	2,000	2,010
Irma	1,600	1,525
Totals	106,275	106 245

California

Los Angeles, Calif., Feb. 28.—The daily average production of the California fields the past week, compared with the previous week, with number of producing wells in several fields, was about as follows:

	Past Week	No. Prod. Wells	Prev. Week
Long Beach	121,000	510	118,000
Dominguez	53,500	51	52,000
Santa Fe Springs	42,500	345	49,000
Huntington Beach	42,500	302	42,000
Torrance	41,000	535	42,500
Rosecrans	15,000	30	15,000
Others	279,500		282,000
Totals	602,000		600,500

Mountain States

WYOMING

Practically all of the major Rocky Mountain fields showed increases in pipe line runs during the past week. Runs for both weeks follow:

Fields—	Past Week	Prev. Week
Salt Creek	59,500	57,500
Teapot	2,150	1,920
Rock River	3,350	3,200
Lance Creek	780	725
Poison Spider	125	140
Rex Lake	100	125
Osage	360	350
Hamilton Dome	750	950
Lander	275	375
Pilot Butte	45	60
Lost Soldier	5,470	4 925
Ferris	110	100
Big Muddy	3,240	3,215
Grass Creek	2,235	1,550
Elk Basin	875	850
Greybull	110	100
Totals	79,475	76,085

COLORADO

Florence	250	245
Boulder	30	25
Fort Collins	650	615
Craig	1,150	770
Rangely	115	100
Totals	2,195	1,755

NEW MEXICO

Artesia	780	735
Rattlesnake	165	150
Hogback	350	400
Totals	1,295	1,285

MONTANA

Cat Creek	3,655	3,590
Kevin-Sunburst	3,120	3.245
Totals	6,775	6,835
Miscellaneous	200	210
Rocky Mountain Totals	89,940	86,170

Texas

NORTH-CENTRAL

Fields—	Past Week	Prev. Week
Wortham	77,000	74,500
Corsicana-Powell	54,255	54,280
Archer County	39,225	41,860
Mexia	22,000	20,650
Electra	16,855	17 045
Stephens County	15,690	15,635
Burkburnett	14,895	14,995
Reagan County	11,520	11,050
Eastland County	10,290	10,485
Richland	8,300	8,950
Young County	6,080	5,085
South Vernon-Wilbarger Co.	5,605	5,045
K-M-A and Iowa Park	3 725	3,730
Moran-Shackelford County	2,420	2,400
Callahan County	2,555	2,280
Panhandle District	2,440	1,925
Currie	1,730	1,750
Mitchell County	1,580	1,595
Brown County	1,070	915
Strawn-Palo Pinto County	710	720
Perolia-Clay County	380	390
Montague County	75	80
Coleman County	60	75
Thrall-Williamson County	55	50
Scurry County	45	45
Glasscock County	35	30
Throckmorton County	30	30
Jack County	25	30
Totals	298,650	295,625

GULF COAST

Hull	14,900	15,225
West Columbia	12 500	12,560
Orange	11,000	10,100
Goose Creek	8,700	8,700
Humble	5,100	4,750
Sour Lake	4,050	4,050
Batson	1,550	1,500
Saratoga	1,525	1,490
Damon Mound	1,260	1,250
South Liberty	1,250	1,160
Spindletop	1,200	1,000
Pierce Junction	790	775
Blue Ridge	720	765
Big Creek	575	550
Barbers Hill	140	150
Markham	90	80
High Island	60	60
Nacogdoches	30	30
Totals	65,440	64,195
Luling	30,660	31,200
Mirando	13,620	12,100
Somerset	3,630	3,650
*Miscellaneous South Texas	1,070	1,080
Totals	48,980	48,030
Texas Totals	413 070	407,850

*Includes Callahan, Rockdale and Minerva.

Condensed U. S. Production for Twelve Months

(Stated in Barrels)

This table is carried each week by The OIL WEEKLY, and shows daily production average for each state or section. Figures for Oklahoma, Kansas, Texas, Louisiana, Arkansas and Mountain States are compiled by The OIL WEEKLY, while estimates for California and Eastern States are furnished by the American Petroleum Institute.

Daily average for month	*Mid-Continent	North Central Texas	Texas Coastal	Texas Total	Kansas	Okla.	Louisiana	Eastern States	Wyo. Mont. Colo. New Mexico	Calif.	Ark.	U. S. Total
January (1924)	685,540	243,120	75,085	334,485	67,815	374,605	59,125	108,000	144,735	698,965	114,255	1,900,985
February	729,933	254,180	81,131	362,849	68,183	407,568	59,449	104,500	141,775	675,425	114,726	1,934,476
March	762,684	284,874	78,567	388,221	69,864	407,946	55,783	97,800	128,352	650,790	119,869	1,917,023
April	777,590	276,595	76,755	380,005	71,015	429,980	54,740	101,250	127,700	649,825	128,750	1,943,270
May	763,320	267,475	74,175	374,915	71,490	424,355	60,655	103,800	127,770	640,930	148,630	1,952,545
June	799,230	260,785	74,335	375,310	74,265	464,175	62,660	105,750	125,735	628,400	157,165	1,993,465
July	815,830	254,665	75,445	378,365	81,545	479,620	63,855	107,175	124,305	620,175	148,655	2,003,695
August	861,640	254,520	75,700	377,045	85,765	521,355	62,595	107,000	123,895	619,200	142,740	2,037,890
September	886,650	253,243	76,953	366,197	86,758	546,647	62,162	107,622	117,345	611,500	131,343	2,029,580
October	855,823	247,222	75,713	359,861	86,884	521,717	62,493	106,600	107,270	605,060	123,235	1,972,902
November	851,733	248,467	71,648	369.621	86,031	517,237	66,117	106,375	91,205	594,000	119,893	1,950,478
December	873,344	267,065	65,437	385,410	88,065	518,213	59,602	106,875	83,472	606,875	111,402	1,959,917
January	906,160	334,305	65,065	448,900	88,390	483,465	56,520	106,200	78,435	602,600	106,280	1,970,350
February 7	855,285	289,615	62,940	402,025	87,875	477,795	55,585	105,500	85,255	596,000	106,425	1,916,560
February 14	857,860	287,295	62,970	397,835	89,950	480,615	56,870	105,000	89,485	595,000	105,390	1,920,145
February 21	864,575	295,625	64,195	407,850	89,465	479,485	57,870	105,000	86,170	600,500	106,245	1,932,585
February 28	866,805	298,650	65,440	413,070	87,865	480,290	56,985	105,000	89,940	602,000	106,275	1,941,425

*Includes North Central Texas, Kansas, Oklahoma.
NOTE—Wortham, Corsicana-Powell and Mexia production included in North Central Texas.

UNITED STATES PETROLEUM IMPORTS

The following represents the total imports of crude oil by months with the current month given by weeks:

	Atlantic Ports						Gulf Coast Ports					
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	N. Orleans Baton Rge.	Port Arthur Sabine Pass	Tampa	Total	Total at All Ports
January, 1924	398,000	531,000	1,060,000	376,000	949,000	3,314,000	1,295,000	887,000	689,000	15,000	2,936,000	6,250,000
February	520,000	527,000	639,000	458,000	771,000	2,865,000	1,558,000	1,284,000	525,000	195,000	3,562,000	6,427,000
March	802,000	734,000	1,243,000	502,000	1,668,000	5,049,000	2,346,000	1,689,000	1,116,000	301,000	5,257,000	10,281,000
April	653,000	664,000	1,371,000	407,000	1,067,000	4,162,000	1,641,000	1,492,000	510,000	68,000	3,711,000	7,873,000
May	693,000	618,000	1,368,000	264,000	1,329,000	4,272,000	1,398,000	1,308,000	884,000	169,000	3,759,000	8,031,000
June	515,000	466,000	1,864,000	292,000	1,026,000	4,163,000	1,769,000	1,079,000	685,000	145,000	3,678,000	7,841,000
July	375,000	260,000	1,971,000	179,000	1,114,000	3,899,000	1,418,000	1,211,000	579,000	153,000	3,361,000	7,260,000
August	463,000	400,000	1,958,000	468,000	788,000	3,945,000	1,857,000	1,210,000	547,000	80,000	3,694,000	7,639,000
September	437,000	193,000	828,000	330,000	878,000	2,666,000	1,090,000	1,350,000	605,000	87,000	3,132,000	5,798,000
October	606,000	299,000	1,140,000	402,000	546,000	2,993,000	1,027,000	1,190,000	492,000	130,000	2,839,000	5,832,000
November	851,000	375,000	2,047,000	709,000	1,108,000	5,090,000	1,695,000	1,631,000	404,000	85,000	3,815,000	8,905,000
December	733,000	113,000	1,192,000	396,000	1,002,000	3,436,000	976,000	1,589,000	338,000	228,000	3,131,000	6,567,000
January	565,000	503,000	1,952,000	269,000	849,000	4,138,000	908,000	1,763,000	444,000	125,000	3,242,000	7,380,000
February 7	116,000	233,000	343,000	47,000	195,000	934,000	350,000	387,000	128,000	.....	865,000	1,799,000
February 14	277,000	120,000	289,000	.....	120,000	806,000	123,000	233,000	135,000	45,000	536,000	1,342,000
February 21	63,000	.....	181,000	120,000	194,000	558,000	318,000	130,000	56,000	80,000	548,000	1,142,000

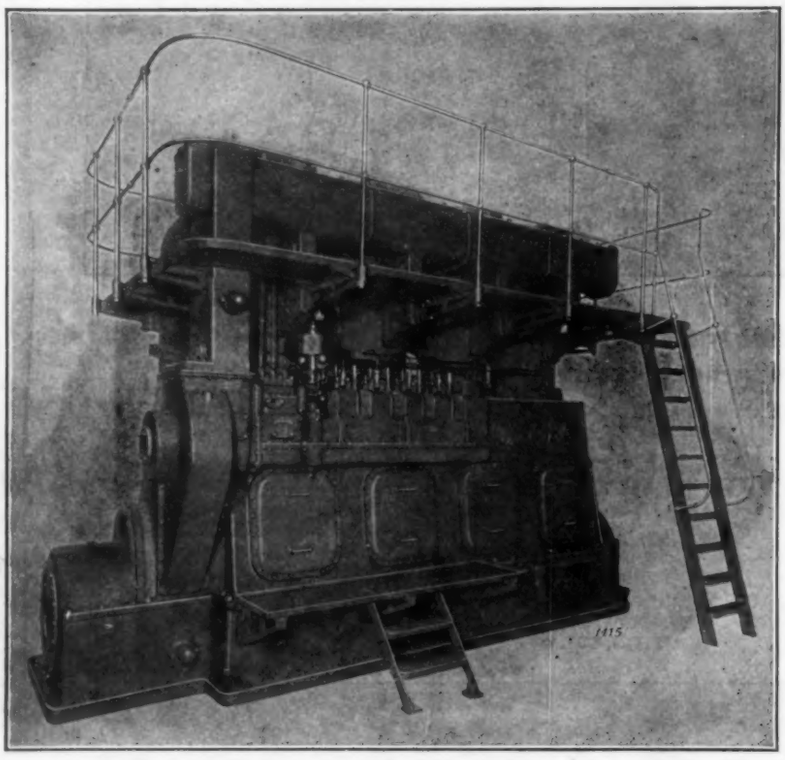
NOTE—Figures by American Petroleum Institute.

Receipts of California Oil at Atlantic Coast Ports

The following shows the receipts of California oil at Atlantic Coast ports by months with the current month given by weeks:

	Atlantic Ports						Gulf Coast Ports					
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	N. Orleans Baton Rge.	Port Arthur Sabine Pass	Tampa	Total	Total at All Ports
January	619,000	77,000	3,156,000	659,000	503,000	4,660,000	.....	615,000	.....	.....	615,000	5,275,000
February	326,000	145,000	2,811,000	842,000	75,000	4,199,000	.....	810,000	.....	.....	810,000	5,009,000
March	298,000	77,000	3,352,000	989,000	413,000	5,129,000	.....	.....	.....	.....	.....	5,129,000
April	170,000	77,000	2,633,000	378,000	224,000	3,482,000	.....	.....	.....	.....	.....	3,482,000
May	190,000	147,000	2,771,000	411,000	273,000	3,792,000	.....	315,000	.....	.....	315,000	4,107,000
June	522,000	147,000	2,490,000	443,000	220,000	3,822,000	.....	.....	.....	.....	.....	3,822,000
July	167,000	70,000	2,017,000	374,000	188,000	2,816,000	.....	75,000	.....	.....	75,000	2,891,000
August	400,000	.....	2,914,000	288,000	520,000	4,354,000	.....	30,000	.....	.....	30,000	4,384,000
September	290,000	148,000	2,737,000	327,000	81,000	3,583,000	.....	.....	.....	.....	.....	3,583,000
October	378,000	217,000	2,338,000	379,000	160,000	3,472,000	.....	.....	.....	.....	.....	3,472,000
November	512,000	223,000	1,676,000	163,000	160,000	2,734,000	.....	.....	.....	.....	.....	2,734,000
December	253,000	74,000	1,713,000	369,000	81,000	2,490,000	.....	93,000	.....	.....	.....	2,583,000
January	385,000	70,000	1,377,000	334,000	260,000	2,426,000	.....	.....	.....	.....	.....	2,426,000
February 7	66,000	.....	327,000	.....	.....	393,000	.....	166,000	.....	.....	166,000	559,000
February 14	181,000	75,000	77,000	.....	.....	333,000	.....	.....	.....	.....	.....	333,000
February 21	.....	.....	278,000	76,000	81,000	444,000	.....	.....	.....	.....	.....	444,000

NOTE—Figures by American Petroleum Institute.



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COFFEYVILLE, KANSAS	HOUSTON, TEXAS	

SINCLAIR OILS

CRUDE OIL PRICE QUOTATIONS

Current Postings

EASTERN STATES

	Mar. 6 1925	Mar. 6 1924
New York Transit	$3.85	$4.50
Bradford (Pa.)	3.85	4.50
Gains	3.75	...
Other Pa. Grades	3.75	4.00
Cabel	2.20	2.05
Ragland	1.30	1.00
Corning	2.25	1.95
Somerset, medium	2.30	2.15
Somerset, light	2.45	2.15

CENTRAL STATES

Illinois	$2.12	$1.92
Indiana	2.13	1.93
North Lima	2.33	2.13
South Lima	2.33	2.13
Plymouth	1.65	1.30
Princeton	2.12	1.92
Waterloo	1.20	1.40
Wooster	2.25	2.00

WESTERN KENTUCKY

Posted by Indian Refining Company for crude from Allen, Warren, Franklin, Davies, Barren, Cumberland and Monroe Counties

36 and above	2.05	...
33 to 35.9	1.95	...
32.9 and below	1.85	...

CALIFORNIA

(Crude oil prices at well)
Los Angeles and Orange Counties

14 to 19.9 gravity	$1.25	$1.00
20 to 20.9 gravity	1.27	1.01
21 to 21.9 gravity	1.30	1.02
22 to 22.9 gravity	1.33	1.03
23 to 23.9 gravity	1.36	1.05
24 to 24.9 gravity	1.40	1.07
25 to 25.9 gravity	1.44	1.10
26 to 26.9 gravity	1.48	1.13
27 to 27.9 gravity	1.52	1.16
28 to 28.9 gravity	1.56	1.19
29 to 29.9 gravity	1.60	1.22
30 to 30.9 gravity	1.64	1.25
31 to 31.9 gravity	1.68	1.28
32 to 32.9 gravity	1.72	1.31
33 to 33.9 gravity	1.76	1.34
34 to 34.9 gravity	1.80	1.40
35 gravity and above	1.85	1.40
Fuel Oil	1.65	...

Rosecrans Field

36 to 36.9 gravity	$1.92
37 to 37.9 gravity	2.00
38 to 38.9 gravity	2.08
39 to 39.9 gravity	2.16
40 to 40.9 gravity	2.24
41 to 41.9 gravity	2.32
42 and above	2.40

MID-CONTINENT

(Prairie Prices)

Below 30 gravity	1.35	$ ...
30 to 32.9 gravity	1.55	...
33 to 35.9 gravity	1.80	...
36 to 38.9 gravity	2.00	...
39 to 41.9 gravity	2.25	...
42 and above	2.35	...

	Mar. 6 1925	Mar. 6 1924
(Sinclair Prices)		
Below 30 gravity	1.35	...
30 to 32.9 gravity	1.55	...
33 to 35.9 gravity	1.80	...
36 to 38.9 gravity	1.95	...
39 to 41.5 gravity	2.25	...
41.6 and above	2.35	...
(Texas Company Prices)		
Below 30 gravity	1.35	...
30 to 32.9 gravity	1.55	...
33 to 35.9 gravity	1.80	...
36 to 38.9 gravity	2.00	...
39 to 41.5 gravity	2.25	...
42 and above	2.35	...
(Magnolia Petroleum Co.)		
Under 28 gravity	1.00	...
28 to 30.9 gravity	1.35	...
31 to 32.9 gravity	1.55	...
33 to 35.9 gravity	1.80	...
36 to 38.9 gravity	2.00	...
39 to 41.9 gravity	2.25	...
42 and above	2.35	...
Corsicana, light	2.00	...
Corsicana, heavy	1.00	...
Mexia	2.00	...
Thrall	1.00	...
Wortham	2.00	...

NORTH CENTRAL TEXAS

(Humble Oil & Refining Co.)

Corsicana, light (Powell)	2.00	1.85
Mexia	2.00	1.85
Currie	2.00	2.00
Richland	2.00	...
Wortham	2.00	...

RANGER

(Humble Oil & Ref. Co.)

30 and below	$1.35	...
30 to 32.9	1.55	...
33 to 35.9	1.80	...
36 to 38.9	2.00	...
39 to 41.9	2.25	...
42 and above	2.35	...

WICHITA AND ARCHER COUNTIES

(Texas)
(Humble Oil & Ref. Co.)

30 and below	1.35	...
30 to 32.9	1.55	...
33 to 35.9	1.80	...
36 to 38.9	2.00	...
39 to 41.9	2.25	...
42 and above	2.35	...
Moran Crude		
30 and below	1.35	...
30 to 32.9	1.55	...
33 to 35.9	1.80	...
36 and above	2.00	...

SOUTH TEXAS

Mirando (Texpata)	1.00	.80
Mirando (Magnolia)	1.00	...

SOMERSET

(Grayburg Pipe Line Company)

30 and below	1.35	...
30 to 32.9	1.55	...
33 to 35.9	1.80	...
36 to 38.9	2.00	...
39 to 41.9	2.25	...
42 and above	2.35	...

GULF COAST

Grade "A"	2.00	...
Grade "B" at Blue Ridge, Hull and Pierce Junction	1.75	...
Big Lake (Reagan County)		
36 to 38.9	$1.95	...
39 and above	2.10	...

LULING

All gravities	1.15	...

LOUISIANA-ARKANSAS

Caddo

38 gravity and above	2.05	...
35 to 37.9 gravity	1.95	...
32 to 34.9 gravity	1.85	...
Below 32 gravity	1.70	...
Homer		
35 gravity and above	1.80	...
33 to 34.9 gravity	1.70	...
31 to 32.9 gravity	1.60	...
Below 31 gravity	1.45	...

COTTON VALLEY

All grades	1.40	...
Haynesville		
33 gravity and above	1.70	...
Below 33 gravity	1.60	...
Bull Bayou		
38 gravity and above	1.85	1.65
35 gravity to 37.9	1.70	1.50
32 to 34.9 gravity	1.55	1.35
De Soto crude	1.90	1.70
Crichton	1.70	1.50
Bellevue	2.00	1.55
Jennings	2.00	1.65
Vinton	2.00	1.65
Edgerly crude	2.00	1.65
Smackover		
28 degrees and above	1.60	...
27 to 27.9	1.55	...
26 to 26.9	1.50	...
25 to 25.9 gravity	1.40	...
Below 25	1.30	...
El Dorado		
33 gravity and above	1.70	...
Below 33 gravity	1.60	...
East Field (Calion)	1.30	...
Stephens District		
26 gravity and above	1.60	...
Below 26 gravity	1.40	...

WYOMING-MONTANA

Wyoming

Byron	1.55	...
Ferris	1.60	...
Elk Basin	2.00	1.80
Grass Creek	2.00	1.80
Rock Creek	1.70	1.55
Lost Soldier	1.28	...
Lance Creek	1.95	1.75
Mule Creek	1.25	.95
Notches	.65	...
Big Muddy	1.60	1.35
Salt Creek	1.60	1.45
Osage	1.95	1.75
Hamilton Dome	1.60	1.40
Pilot Butte	1.35	1.10
Torchlight-Greybull	2.00	1.80
Lander	.70	...
Montana		
Sunburst	1.20	.95
Cat Creek	2.00	1.70

NEW MEXICO

Hogback	2.05	...

CANADIAN CRUDE*

Oil Springs	2.80	2.60
Petrolia	2.73	2.53

*Bounty on Canadian crude is ¼ cent per gallon, or 26¼ cents per barrel.

Present Methods Most Economical

(Continued from Page 23)

would have produced more oil if it had been a commercial field. Of course, you have to consider the loss that rapid development is bound to entail. You are all familiar with the shutdown agreement put into effect at Burbank. The operators there thought they had beautiful wells shut in until they opened them. Then they were disappointed. In the intervening time the rock pressure had been seriously affected and it had declined seriously.

"In Wortham the same thing possibly applies. They will get the maximum by rapid development."

Frank Herald mentioned an experience in Mexico where a well has produced 5,500,000 barrels of oil after once being abandoned. His opinion was that fields depending on water pressure should have slow development.

The experience of lease holders in the Solar field of Wyoming was mentioned by Mr. Wilson, who said:

"I think Solar field in Wyoming gives a demonstration of slow development. It was drilled one well to 20 acres and the operators expected to drill later until they had one well to eight acres. But on trying it recently they got 25 and 50-barrel wells. So the further drilling may never take place."

Effects of rapid and restricted development were given by George C. Matson, consulting geologist of Tulsa, concerning the Luling field.

"The development there," he said, "as you probably know, proceeded very slowly because the United North and South Oil Company had 25,000 acres. But here and there they failed to get leases covering small farms.

"Some of these holders of small leases drilled rapidly on the maximum number of wells. Some drilled one well to each two and one-half acres and they got much higher recovery per acre and their ultimate recovery is going to be greater. That does not tally with Mr. Herald's statement at all, because the Luling field is largely a water pressure field. The question of water encroachment brought varying opinions as to its benefit or detriment. It finally developed that the geologists present did not have uniform definitions of edge water or bottom water. With a common understanding on this, their opinions became more uniform. The question follows:

Effects of Water

"Do you consider the encroachment of edge water detrimental to the recovery of oil from the entire field, or is it beneficial? In answering this question careful discrimination should be made between damage and benefits to edge properties and damages or benefits to the entire field."

The discussion left the impression that the petroleum engineer is prone to look upon edge water as an agency which can be used in gaining higher yield from an oil sand. This opinion was not common in the case of bottom water, the question on it being:

"Do you consider that under the present system of operation the drilling into bottom water has increased the amount of oil left in the sand?"

Mr. Herald expressed this opinion: "I believe in certain areas drilling into bottom water decreases the ultimate production."

This brought a doubt from George C. Matson, who said: "I am wondering if there is any condition that will result in lessening production, either from bottom water or edge water. Take those sands which are variable in porosity. Don't you think those sands are going to be left with considerable water in them if water is allowed to encoach unnecessarily? Take a sand that is uniform, like Burbank. Don't you believe Burbank would produce more oil if it had water?

"We are confronted with the same condition at Graham. I wish we had more salt water. It seems to me water lessens a great many troubles, but under certain sand conditions."

"Just let me interrupt," asked Chairman Lovejoy. "Aren't you confusing edge water with bottom water?"

"No, water in general," replied Mr. Matson. "The question whether it is bottom or edge water does not particularly affect it."

Then came continued discussion as to the proper definition of bottom water, some contending the term should apply to water found in a stratum below the oil bearing formation, others saying it was water found at the bottom of the oil bearing formation.

Numerous instances were given where the presence of water has been a means of gaining high yield from an oil sand.

Gas, back pressure and some mechanical flow devices came in for consideration with this question:

Gas With Oil

"Do you believe it is necessary to produce gas with the oil in order to best recover the oil? Is such gas now being produced in extensive quantities? Do you think the percentage of oil left in the sand could be reduced by maintaining a back pressure on all producing wells in a field?"

Chairman Lovejoy gave some results of investigations on back pressure and was asked if he believed the gas at Cromwell could have been used more effectively under conditions there.

"I think," he repdied, "if those wells had been closed in and allowed to produce under restricted flow as they did in California, put back pressure in the flow through bean, the recovery per acre could have been increased, although the wells themselves and the property would probably be hurt. But it would be a benefit to all the other properties."

This meeting as a forum was of especial interest to G. M. Gully of the Marland Companies and H. A. Ley of the Skelly Oil Company. They are engaged in special work of gathering conservation data in the Mid-Continent territory. They were quick to appreciate the attitude of the speakers that the ultimate recovery of oil in a pool must be considered differently from the economical recovery of the oil.

The attitude of the several speakers was that both rapid development with close well space are sure to increase the ultimate yield of pools. So if getting the highest recovery is the opposite of waste, town lot drilling is a benefit. But when the questions of cost and profit are considered the question has a different aspect. The opinion of the forum was that the economics of a season are as much a factor in proper field development as are well spacing and rapid or retarded development.

Shareholders Offered New Issue by Humphreys-Boyd

Dallas, Texas, March 2.—The Humphreys-Boyd Oil Company has announced that it will issue rights to stockholders as of record March 10th, payment March 15, to subscribe for shares at par in the ratio of one to each two and one-half outstanding. The company has 127,000 shares at $25 par value outstanding, and the present quotations of stock listed in Denver ranges from $72 to $74. Funds derived from sale of new stock will be used for development of company's properties and care for expansion warranted by the improvement of the oil industry.

Production of the Humphreys-Boyd Oil Company is the second largest in the Wortham field, with a daily average of about 16,000 barrels from 48 completed wells, and 25 additional tests are nearing completion, while 900 barrels of production is held in the Richland field. Exploration work in the Nocona, Montague County, Texas, area and Bazette structure in East Central Texas is now under way, while the company holds an interest in a test to be drilled shortly on a new Mexia fault zone locality in Henderson County. Among recent additions to the company's holdings are a block of 16,000 acres in Reagan County, Texas, two blocks in adjoining counties and general lease protection in Kaufman, Henderson and Hunt counties.

COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

Summarized Review of Field Results

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Product'n This Week	Initial Product'n Last Week
Oklahoma	87	71	52	45	8	6	27	20	19,207	20,381
Kansas	10	8	9	3	..	..	1	5	4,597	2,559
Texas	120	129	81	84	10	4	29	41	21,105	16,128
Arkansas	18	24	16	17	..	..	2	7	1,890	2,360
Louisiana	22	5	10	2	3	..	9	3	1,005	220
Eastern States	114	137	78	84	20	31	16	22	768	795
Mountain States	7	8	5	5	..	..	2	3	4,485	2,180
California	19	25	18	27	..	..	1	1	14,190	10,900
Totals	397	407	269	264	41	41	87	102	67,247	55,523

NOTE—Following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million cubic feet of gas; abn—abandoned; bbls—barrels; b. s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; lcn—location; m—milling; N. S. E. W.—North, South, East, West; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudded; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—under reaming; wo—workover; wosr—waiting on standard rig.

Texas

ARCHER COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Atlantic Oil Prod. Co. L. F. Wilson 1	*	1603
Burns et al L. M. Hayter 1	*	1375
Roy I. Carter et al J. H. White 20-E	30	1614
Goldsmith-Grant et al E. Bearden 1	*	1109
Gulf Prod. Co. J. F. Rodgers 3	15	1305
J. F. Rogers 1-B	200	1385
E. S. Monahan 8	70	1304
A. P. Nichols 8	*	1765
A. P. Nichols 10	100	1551
Vic Stampfli et al 2	170	1338
Vic Stampfli et al 3	150	1345
Hobbs et al L. F. Wilson 5	10	1585
Humble Oil & Ref. Co. L. M. Hayter 5	*	1380
John G. Knox et al L. F. Wilson 1	*	1653
Maer & Staniforth et al E. S. Monahan 2-A	75	1318
Magnolia Pet. Co. Kate Rogers 1	*	1502
Marland Oil Co.-Murchison & Fain H. Harmel 8-C	50	1280
L. M. Hayter 1	*	1500
Oil Investment Co. Fee 6	65	1193
Ray-Featherstone et al E. A. Hausler 14	*	1165
Roxana Pet. Corp. J. M. Kunkel 3	20	1166
J. M. Kunkel 5	20	1173
J. M. Kunkel 6	115	1162
Shappell Oil Co. Jackson 16	240	1799
Sun Oil Co. Kunkel 2	400	1150
Shaw & Rathke et al Hayter 3-A	50	1333
Texhoma Oil & Ref. Co. Chilson 1	40	1810
Underwood Drilling Co. M. E. Rogers 3	*	1385
White Bros. et al Kunkel 2	1500	1162
Kunkel 3	1000	1155

EASTLAND COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Magnolia Petroleum Co. P. O. Haris 8	75	1463
Pittman-Barker & Adams Pettitt 2	15	1480
Woods et al Payte 1	*	1454

STEPHENS COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Magnolia Pet. Co. J. W. Brown 7, dd	†	3220
B. S. Walker 5	†	1400

ELECTRA

Company, Well and Location	Initial Production Bbls.	Depth
Magnolia Petroleum Co. W. T. Waggoner 9-A	10	1465
Section Two Oil Co. 5	10	1590
Burnett Ranch Oil Co. 10	30	895
Texhoma Oil & Ref Co. Burnett Estate 14-B	55	1822

K-M-A AND IOWA PARK

Company, Well and Location	Initial Production Bbls.	Depth
Roxana Petroleum Corp. Denny 2.	*	820
Underwood Drilling Co. W. L. Hodge 1	*	1907

YOUNG COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Humble Oil & Ref. Co. Ben Schlagel 1	50	1198
Kentucky Oil Corp. & Roxana Oil Corp. J. W. Bullock 1	*	1502
Murchison-Fain et al W. E. Campbell 7	85	1218
W. E. Campbell 9	95	1222
W. E. Campbell 10	240	1216
W. E. Campbell 11	250	1213
Olney Production Co. S. B. Kemp 1	10	1106
Simms Oil Co. J. D. Carpenter 6.	500	1038
Texhoma Oil & Ref. Co. W. E. Gambrell 2	215	1220
W. E. Gambrell 4	*	1230

SOUTH VERNON (Wilbarger County)

Company, Well and Location	Initial Production Bbls.	Depth
Bridwell-Heydrick et al W. H. Stephens 6	†	2289
Continental Oil Co. C. Zipperle 1	¶2-90	1333
McCamey-Sherrin-Lucey et al W. H. Stephens 4	¶10-35	1326
Ray-Massie et al Bond 6	60	2058
F. E. Skinner et al F. Streit 1	*	2501
Saley-Wynne et al W. T. Waggoner 1	*	2062

GULF COAST

Company, Well and Location	Initial Production Bbls.	Depth
West Columbia—		
Humble Oil & Ref. Co. Pipkin and Lee 15	5	670
Pipkin and Lee 16	*	800
Pipkin and Lee 17	*	580
George Hude Oil Co. McGregor 8	10	650
Orange—		
Gulf Production Co. Consolidated Co. Hamman 2	*	5150
Liberty—		
Oxford Oil Co. Harrison 1	1000	3450
Mills Bennett No. 2	400	3400
Vacuum Oil Co. Barrett 1	2900	3432
Spindletop—		
Williams Oil Co. Glayds 1 Blk. 5.	8	729
Batson—		
Ada Belle Oil Co. Conden 82	*	1175
Goose Creek—		
The Sun Co. Wright 5, M. & G., wo	15	2520
Hull—		
Republic Production Co. Dolbear 56, wo	50	2550
Gulf Production Co. Phoenix Dev. Co. 46	2500	3150

NORTH TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
Powell—		
The Texas Co.'s No. 13 Flemming.	42	2930
Pure Oil Co.'s No. 11 Kent	20	1650
Humble Oil & Ref. Co.'s No. 8 Kent	40	1640
No. 14 Irvine	60	1630
Wortham—		
Boyd Oil Company's:		
No. 6 Boyd	400	3015
No. 8 Boyd	450	3015
No. 10 Ferguson	150	3015
No. 3 Manning	100	3025
No. 2 Smith "B"	150	2995
No. 14 Smith "B"	150	2985
No. 5 Boyd	150	3028
No. 7 Boyd	800	3000
No. 9 Ferguson	100	3020
No. 13 Ferguson	200	3015
No. 15 Ferguson	175	3016
Cranfill et al's No. 1 J. E. Boyd	*	3080
Farrish-Watts-Collins' No. 6 Jackson	175	3011
Godley Oil Co.'s No. 2 Ferguson	100	3025
J. K. Hughes' No. 10 Crouch	150	2992
No. 14 Crouch	300	2990
No. 15 Crouch	300	2990
Humble Oil & Refining Co.'s:		
No. 9 E. D. Crouch "A"	125	2982
No. 10 Ella Dodd	400	3030
No. 5 Lindly "A"	300	3005
No. 7 Lindly "A"	100	3010
No. 3 Simmons	*	2995
No. 10 Ella Dodd	400	3030
Magnolia Petroleum Co.'s:		
No. 1 Boyd	350	3020
No. 20 Boyd	250	3021
No. 23 Boyd	300	3025
No. 19 Boyd	100	3020
No. 24 Boyd	200	3020
Pure Oil Co.'s No. 4 Bounds	50	2940
Republic Prod. Co.'s No. 6 Allmonds	200	2991
Rio Bravo Oil Co.'s No. 9 Right-of-way	150	2985
J. E. Walsh et al's No. 1 Barry	100	3015

EAST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
Waskom Field, Harrison County—		
Gulf Prod. Co.'s Waterman C-1, E. Pollack Survey	¶18	2804
North Central Texas Oil Co.'s Massengale 1, M. D. Edwards Sur.	¶2	1935
Panola O. & G. Co.'s Abercombie 1, G. W. Martin Survey	¶10	1909
Total, 3 wells	¶30	
Panola Field, Panola County—		
Industrial Gas Co.'s Cook 2, Jas. Asher Survey	¶7	1961
Magnolia Pet. Co.'s Estes 1, Lovell Survey	¶7	1035
McCormick et al's Sheehan 2, Jas. Asher Survey	¶4	1020
Thomason et al's G. C. Tiller 2, Jas. Storey Survey	¶6	999
Total, 4 wells	¶24	

SOUTH LOUISIANA

Company, Well and Location	Initial Production Bbls.	Depth
Vinton—		
Vinton Pet. Co.'s No. 1 Gray	*	2725
Evangeline—		
Bardin & Myers' No. 11 S. C.	*	1725
Coastal Oil & Fuel Co.'s No. 88, Crowley Fee	250	1675

Oklahoma

Company, Well and Location	Initial Production Bbls.	Depth
Burbank Field—		
Carter Oil Co., No. 13, C S L SW SE SE 16-26-6	315	2964
Phillips Pet. Co.'s No. 10, C SE NW NE 18-27-6	2500	2972
Carter County—		
Humble Oil & Ref. Co.'s Hales 1, C NE NE SE 28-1s-3w	170	3380
Hales 2, C NE SE SE 28-1s-3w	¶	3176
Magnolia Pet. Co.'s No. 1, Westerly, C NE NE SW 19-1s-3w	18	3015
Atlantic Oil Co.'s No. 1-A Lahman, C NE NW NE 25-2s-3w	90	2784
Healdton Pet. Co.'s No. 2, Bogle, C NE NE SE 7-2s-2w	100	2837
Cotton County—		
Clark & Cowden's No. 3, Tettleton, SWc SW SE 9-1s-9w	*	2505
Creek County—		
Pure Oil Co.'s No. 3, Kernal, SEc SE NE 30-14-8	¶	630
Prairie Oil & Gas Co.'s No. 3, Adams, SWc NE NE 27-15-10	240	3053
R. A. Kirchner et al's No. 1-A, NWc SE NE 33-15-10	*	3219
J. H. Wright's No. 3, Davison, SWc NE SW 24-17-10	35	1834
Hughes County—		
Josey & Margay's No. 1, Arbor, C NW SW NW 1-9-9	643	3362
Independent Oil & Gas Co.'s No. 5, C NW SW NE 2-9-9	400	3350
No. 3, C SE NE NE 2-9-9	600	3383
T. B. Slick's No. 3, C NW NE NW 2-9-9	150	3314
No. 4, C SE SE NE 3-9-9	600	3312
Transcontinental Oil Co.'s No. 9, Tiger, C SE NE NE 4-9-9	700	3310
No. 2, Carter, C NE NE 5-9-9	*	3400
No. 8, Tiger, C NE NE NE 4-9-9	645	3306
Tidal-Osage Oil Co.'s No. 2, Baker, C SW NW SW 3-9-11	350	2908
Berry Pet. Co.'s No. 1, Chupod, C SE SW SW 1-8-8	20	3443
Robinson-Amerada Pet. Co.'s No. 5, Carter, C SW NE NW 4-9-9	12	3437
Jefferson County—		
Kelsey & Tarkington's No. 1-A Spain, SEc 33-7s-6w	*	3008
Kay County—		
McMann Oil Co.'s No. 1 Warren, SWc SW SE 27-25-1w	1162	4162
Wentz Oil Corp.'s No. 18 McKee, C SE NE SW 34-25-1w	2819	4285
Lincoln County—		
Continental Oil Co.'s No. 1-A Powell, SEc NW NW 17-16-3	*	840
Muskogee County—		
Southwestern & Selby's No. 1, Bagwell, NWc SE 3-14-5	50	3465
W. B. Pine's No. 1-A Barnett, SEc NE NE 24-16-15	*	1807
George Wilson's No. 3 Tucker, SWc SW SE 16-15-15	¶	869
Okfuskee County—		
T. B. Slick's No. 2 Sands, C NW SW SE 35-10-9	*	3327
McMann Oil Co.'s No. 2 Brooks, C W L W½ NE SW 36-12-10	*	1310
Wangerine's No. 1 Callahan, NWc 25-12-9	*	4106
Amerada Pet. Co.'s No. 1, C NW NE NE 20-12-10	5	3825
Atlantic Oil Co.'s No. 2 Fisher, C SE NW SE 36-12-10	25	3062
Prairie Oil & Gas Co.'s No. 3 Sawyer, C NE NE SE 35-10-9	¶	3353
No. 4 Vincent "A," C SW SW 34-10-9	100	3298
Roxana Pet. Corp.'s No. 1 Curley, C SW NE SW 14-10-8	400	3575
Snowden-McSweeney No. 1, C SW NW NW 14-10-8	390	3600
Cosden Oil & Gas Co.'s No. 3, C SE NW SW 35-10-9	765	3319
Oklahoma County—		
Schoenfelt's No. 1 Hawkins, C N L N½ NW SW 4-11-1w	70	1610
Okmulgee County—		
White Star Products Co.'s No. 1 Roberts, SWc SW SW 25-16-14	*	3310
Jackson & Wise's No. 6 Grayson, C W L NW SW SE 3-15-9	20	1912
Skelton et al's No. 1 Brown, NEc NE SE 28-15-13	*	2616
A. W. Cline et al's No. 5 Beggs, NEc SW SE 33-15-14	*	2620
Misener's No. 7 Love, NEc SW NE 16-14-14	10	818
Monesette Oil Co.'s No. 1 Smith, C NE NW NW 29-13-13	*	3020
Utah Oil Co.'s No. 4 Scott, C S L S½ SE NE 15-13-14	40	1942
Osage County—		
Devonian Oil Co.'s No. 3, C W L W½ SE 34-25-11	5	1250
McKeon & Mallory No. 1, NWc NE SE 10-23-8	*	2811
The Texas Co.'s No. 2, C N L N½ SW 13-22-8	*	2440
Sand Springs Home No. 83, C S L SW SE NW 29-20-11	¶	1951
No. 7, C S L E½ 21-20-11	80	2365
G. T. Oliphant's No. 3, C S L E½ SW 19-25-8	*	1125
Adamson et al's No. 1-A Sigon, SEc NW SW 30-27-8	65	2946
A. D. Simms No. 3, C S½ NE NE 36-29-11	5	1530
Owen-Osage Oil Co.'s No. 314, C S L NE 31-29-12	*	1760
No. 312, SWc 10-27-4	¶	1859
Oklahoma Natural Gas Co.'s No. 652, NEc NW SW 29-20-12	*	1220
Pawnee County—		
Cosden & Co.'s No. 10, School Land, SWc SW NW 16-20-7	90	2650
No. 8, School Land, C SW NW NW 16-20-7	100	2616
J. B. Grieves' No. 2 Hart, SEc SW SW 30-21-8	*	3026
Samples & Mann's No. 3 Van Eman, C N L N½ NW NE 17-20-7	120	2717
Flynn, Morgan & Shaffer's No. 1 Davis, SEc SW NW 4-20-5	*	4002
Payne County—		
Hughes et al's No. 1 Munns, SWc SW NW 1-17-5	*	3820
Seminole County—		
Roxana Pet. Corp.'s No. 3 Yahola, C NW SE SW 3-10-8	100	3470
Cosden Oil & Gas Co.'s No. 8 Toney, C NW NW SW 4-10-8	400	3448
Sinclair Oil & Gas Co.'s No. 4 Clark, C SE NE NE 4-10-8	1200	3465
Southwestern Pet. Co.'s No. 5 Wisner, C NE SE NE 4-10-8	935	3465
Tidal-Osage Oil Co.'s No. 2 Baker, C SE NW NE 8-10-8	20	3485
Magnolia Pet. Corp.'s No. 2 Frantz, C NW SW SW 32-8-8	73	4007
No. 2 Walker, C E L E½ NW NW 32-8-8	1300	3214
H. H. Taylor's No. 1, C NW NW SE 35-9-6	*	3961
Dixie Oil Co.'s No. 2 Liggon, C NE SW SE 25-8-7	60	3064
Stephens County—		
Crump & Beard's No. 1 Warner, NEc 22-1s-8w	*	2280
Tulsa County—		
Echo Oil Co.'s No. 4 Grayson, SWc SW NE 5-19-12	75	2110
National Drlg. Co.'s No. 2 Henson, SWc NE NE 1-20-13	¶	1600
Schermerhorn Oil Co.'s No. 1-A E. Vann, NEc SW NE 1-20-13	*	1578
Elo Oil Co.'s No. 2 Smith, NWc NE SE 29-20-13	*	1498
Tulsa County No. 1 Varnest, NEc NE NW 34-19-13	*	2185
Sinclair O. & G. Co.'s No. 1 Johnson, SWc SW NW 5-18-14	*	2191
Thompson & Black's No. 1-A Werstone, SWc SW SE 3-16-12	¶	1750
Winemiller et al's No. 3-C Brown, C W L W½ 18-16-13	20	1872
Lewis et al's No. 1 Berryhill, NEc SE SW 1-17-14	10	1318
Waggoner County—		
Dodd et al's No. 2, C N L N½ SW SE 14-17-16	30	793
Sloman & Eman's No. 1 Murphy, SWc SW NE 18-17-16	¶	993
Dr. A. H. Corder's No. 2 Atkins, NEc NW SE 25-18-15	75	1465

Kansas

Company, Well and Location	Initial Production Bbls.	Depth
Butler County—		
Vickers et al's No. 1 Brainard, NEc 3-25-3	119	2725
Phillips Pet. Co.'s No. 1 Fitch, NWc NW NE 5-25-4	10	2757
Cowley County—		
J. A. Hull-Emerald's No. 11 Kukuk, NWc NW NE 24-32-4	100	3038
Shawver & Sutton's No. 1 Eastman, C SW SW NW 5-31-6	40	2852
Sinclair Oil & Gas Co.'s No. 1 Spengler, C SE SE NW 13-32-4	624	2546
Waite Phillips et al's No. 1 Beebe, C NW NW NE 29-33-3	130	3276
No. 4 Johnson, C NW SW SE 20-33-3	3214	3244
Empire O. & G. Co.'s No. 4 Eastman, SEc NE SE 6-31-6	120	2840
Dickinson County—		
Kellough & Thompson's No. 1 Barnett, SWc SW SE 29-15-7	240	2505
Harvey County—		
C. B. Shaffer's No. 1 Thompson, NWc NE NW 11-24-2	*	2820

Louisiana

Company, Well and Location	Initial Production Bbls.	Depth
Bellevue Field—		
G. W. Wetherbee et al's Fee F-4, 23-19-11	5	341
Caddo Parish—		
W. D. Chew et al's Fee 3, 27-21-19	15	1950
Monroe Gas Field—		
Feazel et al's Richland 1, 14-19-4e, Ouachita Parish	¶10	2201
LaDel et al's Fee 32, 10-19-5e, Ouachita Parish	¶28	2159
Oil Fields Exploration Co.'s Watson 1, 13-20-4e, Morehouse Parish	¶13	2185
Southern Carbon Co.'s Fee 43, 31-19-5e, Ouachita Parish	*	2150
Total, 4 wells	¶51	
Cotton Valley Field—		
Crusader Oil Prod. Co.'s Hope B-6, 13-21-10	180	2519
Hope B-10, 13-21-10	200	2514
Fortuna Oil Co.'s Crichton 1, 19-21-9	*	2660
Humble O. & R. Co.'s Bodcau B-11, 13-21-10	100	2514
Bodcau B-12, 24-21-10	100	2513
S. S. Merritt 4, 14-21-10	35	2572
Ohio Oil Co.'s Bodcau 15, 28-21-10	60	2542
Bodcau 16, 13-21-10	80	2511
Total, 8 wells	755	

Arkansas

Company, Well and Location	Initial Production Bbls.	Depth
Irma Field, Nevada County—		
Autrey Oil Co.'s Womack 5, 10-14-21	165	1220
Smackover Field, Ouchita County—		
Forest & McWilliams' Neeley 1, 26-15-16	100	2339
Gulf Refining Co.'s Reynolds 3, 23-15-17	75	2305
Hunt et al's Haltom C-13, 26-15-17	75	2340
Riley 1, 22-15-17	115	2362
J. W. King's Jackson 2, 27-15-16	75	2316
Magnolia Pet. Co.'s Clawson 1, 35-15-17	60	2295
May-Do Oil Co.'s Berry 2, 33-15-15	45	2000
Riggs Drilling Co.'s Green 1, 23-15-17	150	2358
Standard Oil Co.'s Alphin 1, 2-16-15	150	1990
Staples et al's Smith 4, 36-15-17	40	2297
Whittiken et al's Anderson 5, 23-15-17	50	2298
Green 1, 23-15-17	125	2379
Smackover Field, Union County—		
Broderick & Calvert's Bradford 2, 8-16-15	750	2405
Gulf Ref. Co.'s Werner 30, 6-16-16	60	2260
Hickman et al's Graves 1, 3-16-15	*	2404
Magnolia Pet. Co.'s Campete-Campbell 4, 13-16-17	20	2360
Total, 16 wells	1890	

Mountain States

WYOMING

Company, Well and Location	Initial Production Bbls.	Depth
Salt Creek—		
Marine Oil Co.'s Wyo-Kans No. 3, 28-40-78	*	2122
Midwest Oil-Wyoming Associated No. 2-A, SW¼ 12-40-79	275	2345
No. 24-A, NW¼ 12-40-79	200	2535
Wyoming-Associated No. 21, NW¼ 26-40-79	335	....
Midwest Oil Co.'s No. 4, NE¼ 35-40-79	1175	1050

MONTANA

Kevin-Sunburst—		
Queen City Oil Co.'s No. 8	2500	1485

COLORADO

Mesa County—		
J. F. Harrison et al, 8-8-102	*	2120

California

Rosecrans—		
Marine Oil Co.'s No. 33	2500	4409
Tidal Oil Co.'s No. 1	250	4428
Long Beach—		
W. R. Ramsey's Long Beach 5-B	1600	4500
Wigle & McBride's Woods 1-A	125	3978
Shell Co.'s Kent 4	125	4659
Pan American's Coffin 1	100	4903
Dominguez—		
Union Oil Co.'s Hellman 9	1615	4168
Shell Co.'s Reyes 14-A	2100	4177
Reyes 22	600	4170
Associated's DeFrancis 5	2000	4360
Ventura Avenue—		
Shell Co.'s Taylor 7	1175	4646
Huntington Beach—		
Petroleum Midway's Brown 5	100	3225
Standard's H. B. 29-B	130	4385
Torrance—		
General Petroleum's Poggi 1	100	3825
Elk Hil's—		
Pacific Oil Co.'s No. 110, Sec. 35-30-24	270	2950
Midway District—		
Balboa Oil Co.'s No. 44, Sec. 24-31-23	1000	4028
North American's No. 14, Sec. 30-31-24	300	4066
Santa Barbara County—		
Brooks Oil Co.'s No. 4	100	3056
San Luis Obispo—		
Oakridge Oil Co.'s Mahoney 1	*	3654

Eastern States

PENNSYLVANIA

Bradford Field—		
South Penn Oil Co. Pittinger 1	2	....
Melvin 1	2	....
Riddle 43	3	....
Weston 80	3	....
Armstrong 17	3	....
Associated Producers Co. Bingham 313	5	....
Ostrander & Murphy Bingham 1	3	....
Singerland & Co. Chamberlain 1	3	....
Korner Bros. Pratt 1	3	....
C. E. Potter Irvine 1	3	....
Love, Wright & Co. Grant 1	3	....
S. A. George George 1	2	....
J. A. Hooper Bingham 431, tract 2	2	....
Kalkins & Co. Campbell 1	3	....
Dinsmore & Co. Dinsmore 4	2	....
Tibbits & Murphy Sherrick & Co. 1	2	....
Wright & Co. Burgess 1	2	....
George & Co. Lafferty 1	2	....
R. C. Lloyd Ekas 1	2	....
Schwab & Roff Borden 1	2	....
J. H. Gibson Farr 1	2	....
Hazelwood Oil Co. Lafferty 1	2	....
J. Roggenbaum Roggenbaum 1	2	....
Venango County—		
H. B. Melat Kellerman 22	2	....
S. C. Sampson Nelson 8	2	....
Kelley & Co. Neel 60	2	....
Beaver County—		
Black Bros. & Co. B. F. Hicks 4	2	....
Alum Rock Gas Co. Gardner 1	*	....
H. L. Stuttler Joseph Dicanio 1	5	....
Butler County—		
Graham & Co. Ray 3	2	....
Hilliard Oil & Gas Co. Day 3	2	....
Clarion County—		
Levi & Co. Reed 2	2	....
Greene County—		
Philadelphia Oil Co. S. Stephens 1	¶2	....
Carnegie Nat. Gas Co. J. H. Henderson 1	¶2	....

NEW YORK

Bolivar Field—		
Forest Oil Co. Reed 1	30	....
Wood 1	20	....
Allegheny-Bradford Oil Corp. Davidson 1	20	....
A. L. Shaner Shaner 1	5	....

WEST VIRGINIA

Ritchie County—		
Sigafoos Bros. Sigafoos Bros. 1	¶¼	....
Hope Natural Gas Co. Harley Snodgrass 1	¶¼	....
Maxwell Heirs 1	¶1	....
J. R. Westfield 1	¶2	....
E. W. Goff 1	5	....
D. M. Ehert 1	2	....
J. Westfall 1	¶2	....
N. D. Mason 1	*	....
C. S. Lewis 1	3	....
Martha Lewis 1	2	....
Hope Const. & Ref. Co. Andy Jordan 1	5	....

Buying Unmarked

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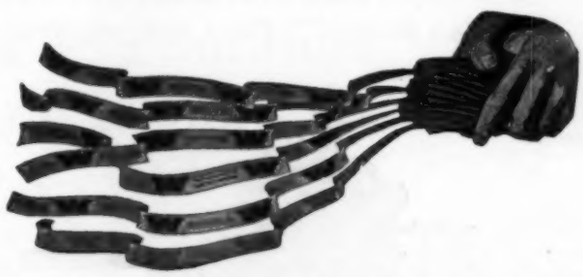
"WILLIAMSPORT"

sensed this danger a few years ago and have since spent a fortune to protect you from getting the wrong grade.



Careful Drillers, as a result, are no longer taking chances, but are demanding the protection

WILLIAMSPORT

Factory Certified-Telfax Tape Marked

WIRE LINES

give to them at no additional cost.

It is the only way outside of an expensive laboratory test for the user to KNOW the grade he gets.

You are entitled to this protection—demand it and see that you get it.

Williamsport Wire Rope Co.

Main Office and Works, Williamsport, Pa.

Oil Country Sales Office: 4th St. and Midland Valley Tracks, Tulsa

Houston	Holdenville	El Dorado
Graham	Bristow	Shreveport
Mildred	Muskogee	Casper
Shidler	Okmulgee	Lewistown
Blackwell	Bartlesville	Ranger
Cromwell	Smackover	Electra
Ardmore	Arkansas City	Wichita Falls

WILLIAMSPORT

SERVICE IN EVERY IMPORTANT FIELD

Company, Well and Location	Initial Production Bbls.	Depth
Pittsburgh & West Va. Gas Co. J. H. Helfin 2	*	....
Gilmer County—		
McCall Oil & Gas Co. Miller Hrs. 3	5	....
Star Oil & Gas Co. Charles Luzader 1	*	....
Calhoun County—		
Bickel Bros. Stump Hrs. 4	16	....
Hope Const. & Ref. Co. W. A. Edwards 1	¶2½	....
Lewis County—		
West Fork Oil & Gas Co. E. R. Raymond 1	¶3½	....
Pittsburgh & West Va. Gas Co. W. J. Watson 1	¶3½	....
Doddridge County—		
Bates Oil Co. D. C. Young 1	¶1¼	....
Zinn & Broadwater O. P. Scott 2	¶1½	....
Roane County—		
Mayfield Oil & Gas Co. Samuel Shafer Heirs 1	20	....
Logan County—		
Wacatock Oil & Gas Co. Dingess Coal Land 10	5	....
Tyler County—		
A. S. McCullough & Co. L. L. Parker 1	¶¼	....
Wetzel County—		
Hope Const. & Ref. Co. J. R. Allen 1	¶2½	....
Braxton County—		
West Virginia Central Gas Co. D. S. Engle 1	¶3½	....
Pleasants County—		
Monongahela Oil Co. Wagner 11	*	....
Wood County—		
Bowser & Ekas Johnson Heirs 1	*	....

Bruce Macbeth Gas Engines EFFICIENCY

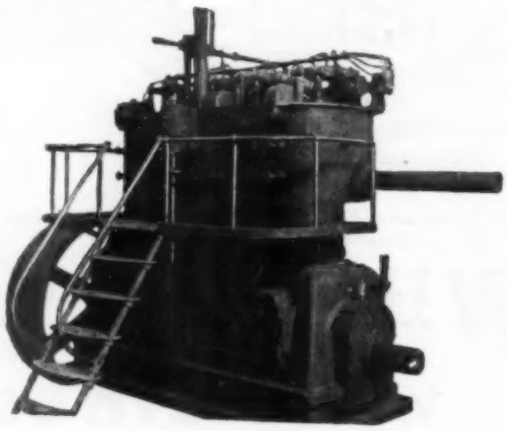
A Water Cooled Engine

Without Water Jacket

The Bruce-Macbeth Gas Engine has attained a reputation second to none—"There's a Reason." Have your engineers investigate.

One Customer Writes:

Our repair-bill on these engines has been very light, so much so that we have seriously considered the discontinuance of our insurance policy of these units.



Another Customer Says:

Engine purchased in February, 1917, continuous 24-hour service. Repairs fifth year, none; sixth year, $37.38; seventh year, $111.09.

Many installations have proved the sound practicability and superiority of this construction; and, without exception, it has received the approval of both practical and technical engineers.

The Bruce-Macbeth Engine Co.

J. B. SIMLER, District Manager

209 South Cincinnati Avenue **Tulsa, Okla.**

Main Office and Works—Cleveland, Ohio

ECONOMY Bruce Macbeth Gas Engines

KENTUCKY

Company, Well and Location	Initial Production Bbls.	Depth
Barren County—		
Norris Bros. & Harrington Evans 2	11	552
Consolidated Gas Co. Hall-Baker 3	12	562
Wood Oil Co. Will Church 5	2	560
Stafford, Scott & Co. Lewis 2	2	437
McCandless & Co. Horace Church 1	*	550
Lawrence-Johnson Counties—		
Townsend & Garrison C. K. Dobyne 15	25	763
Cumberland Pet. Co. J. J. Skaggs 3	7	785
Union Gas & Oil Co. C. K. Dobyne No. 1, tract 6	60	762
Caney Sparks 2	40	769
Lee-Owsley Counties—		
Combs Bros. Dev. Co. A. J. Combs 4	15	....
Hupp, Duff & Co. Adaline Porter 5	20	....
The Petroleum Co. Gourley-McQuire 3	8	....
Dulin & Co. Little Sexton Creek 1	*	1132
Owensboro District—		
Thomas & Co. J. H. Evans 2	*	725
C. E. Daugherty & Co. Widow Crowe 1	10	723
Widow Crowe 2	5	727
Allen County—		
Vic. DeCaignay A. W. Duke 10	20	268
White Plains Oil & Gas Co. J. Hornbuckle 7	10	397
Warren County—		
Bolling & Lowman H. Shannon 4	15	468
Tichenor & Co. Potter 1	*	490
Johnson-Magoffin Counties—		
Oliver & Jenkins W. P. Adams 5	6	1100
Petroleum Exploration Co. J. J. Howard 1	*	2100
Cumberland County—		
Dayton Oil Synd. Kin Crawford 4	*	....
Coe & Co. M. Scott 1	*	700
Wayne County—		
Spradlin & Marsh Bridgeman 3	5	....
Wolfe County—		
Kentucky Star Oil Co. Spencer Hrs. 2	5	....
Floyd County—		
Eastern Carbon Black Co. R. McCornice 1	¶5	....
Martin County—		
Carter Oil Co. Unknown 1	¶5	....

SOUTHEASTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Washington County—		
First Nat. Bank of Marietta Harlan & Mendenhall 32	8	....
C. S. Reckard & Co. Dischter Hrs. 1	3	....
William Watterson & Co. Neal McKay 1	¶½	....
Morgan County—		
Pure Oil Co. George J. Frye 4	20	....
Jefferson County—		
W. E. Burns & Co. W. A. Cox 3	5	....

CENTRAL OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Knox County—		
Ohio Fuel Supply Co. E. & M. Allen 1	4	....
East Ohio Gas Co. S. J. Bross 2	¶1	....
Upham Gas Co. J. F. Blubaugh 1	¶½	....
Athens County—		
Carter Oil Co. C. O. Lowery 1	3	....
Salyer Heirs 1	*	....
Waldron & Co. Kate Evans 2	¶¼	1237

NORTHWESTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Hardin County—		
Roundhead Oil & Gas Co. Erwin Hites 5	80	1499
Ohio Oil Co. Manuel Hoover 1	*	1520
Allie Moore Oil Co. John Ward 1	*	1487
Hancock County—		
Dave King Jr. & Co. E. Gorby 14	5	1321
Porter & Hovis L. Aurand 15	25	1319
Wood County—		
Harkness & Maxwell Hatfield 32	30	1505
Van Wert County—		
Stanley Oil Co. W. Skiley 1	5	1290
Ottawa County—		
Reynolds Oil Co. Reynolds 5	2	1307

ILLINOIS

Company, Well and Location	Initial Production Bbls.	Depth
Wabash County—		
Wirebaugh & Co. H. A. Price 1	40	1486
Max Oil Co. Holson-Dorney 2	45	1512

Axelson PRODUCTS — THERE IS NO ECONOMICAL SUBSTITUTE FOR QUALITY

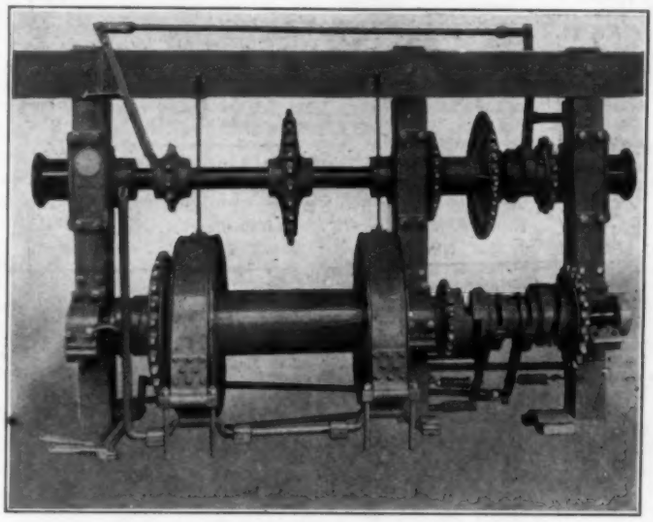
J&L Casing, Tubing Line Pipe

TRANSIT PUMPS for Field, Refinery & Pipe Line

REID PRODUCTS ALWAYS RELIABLE

RATIGAN PUMPING SPECIALTIES "Safety First"

DREADNAUGHT ROTARY EQUIPMENT "All the Name Implies"



WIRE ROEBLING LINES

OXY-ACETYLENE APPARATUS THE Carbic SYSTEM

For Every Oil Country CAMEL HAIR BELTING Purpose

Donovan Boilers 40 to 80 H.P. Economical~Long Lived

Standard Seamless Tubing High Carbon High Quality

F-R Light Plants F-R Rubber Belting

WARREN STEAM ENGINES Pioneers for 45 Years

JOHNS-MANVILLE PACKINGS increase oil country power

WHITLOCK CORDAGE

"Handles 18 Fourables of 6″ on High-hi"

THESE ARE Draw Works after an Oil Man's own heart! They handle drill stem with no more regard for weight than a good automobile has for hills!

In Oklahoma and Texas oil men say that the Dreadnaught No. 7 Three Speed Draw Works handle 18 fourables of 6-inch drill stem on the third or high speed without strain or hesitation, and that on a 2,000-foot hole they save from forty to fifty minutes every time the drill stem is pulled.

Line and drum shafts are 5-15/16 inches in diameter. Sprockets and clutches are electric manganese steel. All loose sprockets heavily bronze bushed and tapped for Alemite grease gun connections. Chain oiling boxes. Other special features.

Ask for further information at the Frick-Reid Store in your field.

The Frick-Reid Supply Co.

Tulsa, Okla. Pittsburgh, Pa.

West of the Mississippi—Stores Everywhere

East of the Mississippi—The Frick & Lindsay Co.

In Oil Country Equipment—the most HUMAN organization in America

Say you saw it in The Oil Weekly

PERMITS GRANTED FOR NEW WELLS

OKLAHOMA

Carter County—Wirt Franklin of Ardmore, No. 3, Carpenter, C NE SW SW 22-2s-3w. Gypsy Oil Co., of Tulsa, No. 1, McClure, C SE SE NE 28-2s-3w; No. 8, Lindersmith, C NW NW NW 33-2s-3w. Schermerhorn of Minneapolis, Minn., No. 9, Sparks, SE SW SW SW 30-2s-2w. Sprague Oil Co., of Ardmore, No. 5, J. H. Bennett, SW NW SE NW 31-2s-2w. Magnolia Pet. Co., of Dallas, No. 14, J. H. Bennett, C NW NW NW 31-2s-2w. Schermerhorn and others of Minneapolis, Minn., No. 4, J. Dickerson, SW NW SE 5-3s-2w. Amerada Pet. Co., of Tulsa, No. 4, Maniss, SEc SE SE 20-5s-1e; No. 1, E. T. Fish, NWc SW SW SW 27-5s-1e; No. 6, Clay, SWc SW SE NE 28-5s-1e; No. 2, Fee, C S L N½ NE NW 28-5s-1e.

Creek County—Eastern Oil Co., of Buffalo, N. Y., No. 10, Roberts, NEc SW SE 17-15-8. Bu-Vi-Bar Oil Co., No. 3, Winn, C NW SW 18-17-9. Ireland et al's of Sapulpa, No. 1, Nunn, SEc SW SW 4-17-11. Waite Phillips of Tulsa, No. 1, Turnhan, NWc SW 5-16-9; No. 2, Hill, C NW SE 6-16-9; No. 3, Hill, C N L NW SE 6-16-9. Wolfe Oil Corp., No. 2, Turnhan, C W L SE NE 6-16-9. Twin State Oil Co., of Tulsa, No. 1, Wheeler, SWc 22-14-9.

Garfield County—Sinclair O. & G. Co., of Tulsa, No. 14, East Kisner, C NE NW NE 19-22-3w. Crew Heirs No. 17, Crews, C W L SE 19-22-3w.

Hughes County — Minnehoma Oil Co., of Tulsa, No. 1, N. Cain, C SW NW NE 1-9-9. Indian Territory Illuminating Co., of Bartlesville, No. 1, Anderson, C NW NW SW 1-9-9. Josey Oil Co., of Tulsa, No. 2, C. Arboy, C SW SW NW 1-9-9. Independent O. & G. Co., of Okmulgee, No. 8, Izora Alexander, C SW SW NE 2-9-9; No. 8, sarah Alexander, C SE SE NE 2-9-9.

Kay County—Blackwell O. & G. Co., of Blackwell, No. 3, Cumler, NEc SE NE SE 9-27-1w; No. 5, Humphries, SWc NW SW 10-27-1w; No. 6, Humphries, NWc SW SW 10-27-1w.

Muskogee County—Iona Oil Co., No. 5, L. Grayson, SWc SE NW 31-15-15, (old well deepened). H. E. Williams No. 1, L. Rodgers, NEc NE 18-15-17. H. L. Jolly, No. 6, E. N. Garrett, C E L NE NE 33-15-18.

Noble County—Champlin Ref. Co., of Enid, No. 1, Birch, NEc SW 21-24-1w, (old well deepened.)

Okfuskee County—Bingham and Smith No. 1, Mays, SE SE SE 16-13-8. Josey Oil Co., of Tulsa, No. 2, Fields, SWc NW NW 32-12-11. Pitts and others No. 1, Henderson, NEc NW NE 3-11-9. Windsor Oil Co., No. 3, Holmes, NWc SE 22-11-11. Cosden et al's of Tulsa, No. 1, William Richardson, C SE SE NE 17-10-9.

Okmulgee County — Oklahoma Natural Gas Co., of Tulsa, No. 11, Tiger, NWc SE SW 24-16-12. Sheldon & Superior of Muskogee and Lexington, Ky., No. 4, Vore, SWc SE NW 34-16-12; No. 2, Lefor, NWc NE NE SW 34-16-12. R. Poe, No. 1, Vore, SEc SW NW 34-16-12. Thatcher No. 6, R. McGillroy, NWc S½ SW SW 8-13-14. Kellough et al's No. 2, Thompson, C S L SW SE 29-15-11. Amerada Pet. Co., of Tulsa, No. 1, Unallotted (old well deepened) NEc SE 32-13-12. Holey Oil Co., (W. L. Kistler) of Tulsa, No. 1, Morton, SEc NE 32-13-12; No. 1, Wilson, NEc SW NW 33-13-12. Eagle Pitcher Lead Co., of Henryetta, No. 4, Wilson, C E L NW NW 33-13-12.

Osage County—Gillespie et al's of Tulsa, No. 24, C NW NE NE 8-20-12. Wimoan Oil Co., of Tulsa, No. 19, SW NE 9-20-12. Indian Territory Illuminating Oil Co., of Bartlesville, No. 1, SW NW NW 1-21-8. Marland Oil Co., of Ponca City, No. 2, C E L SW 24-21-9. Breene et al's of Tulsa, No. 4, SEc SW SE NE 22-21-10. Tidal Oil et al's of Tulsa, No. 5, NEc NW NE NE 23-21-10. Breene of Tulsa, No. 11, SWc NE SW NW 23-21-10. Gillespie of Tulsa, No. 14, SWc NW SW SE 31-21-12. C. B. Peters of Tulsa, No. 2, C NE SW SE 4-23-9. E. B. Lawson of Nowata, No. 12, C W L NW 28-25-8. The Texas Co., of Tulsa, No. 13, SWc NW SW NE 29-25-8; No. 14, C E L W½ E½ NE 29-25-8. Gilliland Oil Co., of Tulsa, No. 1, NWc NE NW NW 30-25-9. Carter Oil Co., of Tulsa, No. 13, C NW NE NW 13-27-5. Carter No. 14, NEc NW 13-27-5; No. 15, C SW NE NW 13-27-5; No. 16, C SE NE NW NE 13-27-5; No. 12, C NE NW NE 13-27-5; No. 13, C SE NW NE 13-27-5. The Texas Co., of Tulsa, No. 12, C SE NE NW 18-27-6; No. 13, C SW NW NW 18-27-6; No. 14, C SE NW NW 18-27-6. Duffield & Howard of Tulsa No. 1, NWc SW SE 28-28-11.

Mayes County—Milles No. 1, R. White, SEc SW 33-19-18.

Pawnee County—Watchorn O. & G. Co., of Oklahoma City, No. 12, Miller, C NE SE SW 33-23-3. Phillips Petroleum Co., of Tulsa, No. 1, C S L SE NW SE 20-24-5. Elmar Oil Co., No. 4, Rimmer, NW SW SW 16-20-6.

Payne County — Josey Oil Co., of Tulsa, No. 4, Laughlin, SW NW NW 1-18-5, twin to 2-A. Willis Oil & Gas Co., No. 2, Griggs, SWc SW NE 30-18-5, (old well deepened).

Seminole County—Berry of Tulsa, No. 1, Susey, C SW SW NE 31-11-8. Cosden & Waite Phillips of Tulsa, No. 2, H. Williams, C NE NE SW 33-11-8. Mutual Oil Co., of Denver, Colo., No. 6, J. Pierce, C SE NW SE 33-11-8; No. 7, J. Pierce, C NE NW SE 33-11-8; No. 8, J. Pierce, C NW NW SE 3-11-8. McMann and Magnolia of Tulsa and Dallas, Texas, No. 2, J. Foster, C SW SE SW 34-11-7. Nowata Oil & Ref. Co., of Nowata, No. 1, Ida Hill, C SW NW NE 3-10-8. Gypsy Oil Co., of Tulsa, No. 4, C. Sampson, C SW SE SE 5-10-8. W. R. Ramsey of Oklahoma City, No. 2, "South" Salinda, C NW NW SE 31-8-8; No. 3, "South" Salinda, C SE NW SE 31-8-8; No. 2, "North" Salinda, C SW NW NE 31-8-8; No. 2, Amos, C NW SE SE 31-8-8. Producers & Refiners of Tulsa, No. 3, Salinda, C SW SW NE 31-8-8.

Tulsa County—March Oil Co., No. 2, Willy, old well deepened, C E L SE SE 36-19-11. Sparks Oil Co., No. 6, Rentie, C N L NW 16-18-13. Lewis Oil Co., of Pittsburgh, Pa., No. 1, Berryhill, NEc SE SW 1-17-14. Thompson & Black, of Tulsa, No. 2, Berthoff, C N L NW NW 8-16-12. Winemiller and others, No. 4, Brown, C W L SW SW 18-16-13.

Waggoner County — Dersorskey, No. 1, White, C E L SE NE 25-17-16.

KANSAS

Butler County—Phillips Pet. Co., of Bartlesville, Okla., No. 1, Sullivan, SEc 34-24-3. Vickers & Sandford's No. 1, Brainerd, SWc 35-24-3. Vickers et al's No. 1, Joseph, NWc 2-25-3. Mason & Ralston's No. 1, Pratt, NWc SW 6-24-6.

Cowley County—Shawver et al's No. 3, Newton, NWc SW NE 15-30-4. Marland & Neeley of Tulsa, Okla., No. 2, Rockwell, SEc SW NE 13-32-4. J. A. Hull of Tulsa, Okla, No. 1, Griffith, NEc SE NE 14-32-4. Waite Phillips & Marland Oil Co., of Tulsa, Okla., No. 4, Dora Johnson, SEc 20-33-3; No. 1, Caldwell, NWc 28-33-3; No. 2, Bebe, NEc 29-33-3.

Elk County—Belxter & Mitchell's No. 2, McIntyre, SEc 5-30-9. Craft et al's No. 1, Ames, NEc SE 15-31-10.

Graham County—Gruen & Shriler's No. 1, Baker, NWc SE NW 17-10-24w.

Greenwood County — Phillips Pet. Co., of Bartlesville, Okla., No. 1, Prather, SWc SE SE 30-22-10. Skelly Oil & Tidal Oil Co.'s of Tulsa, Okla., No. 14, Wick, NEc NW NW 27-22-11; No. 15, Wick, NWc NE NW 27-22-11. Jennings et al's No. 5, Greenwood, SEc NW SE 33-22-11. Braden Bros., No. 5, Norris, C N½ SE 27-22-13. Transcontinental Oil Co., of Pittsburgh, Pa., No. 4, Green, NEc SE SW 2-23-9. Skelly Oil Co.'s of Tulsa, Okla., No. 1, Hartley, SEc NW 2-23-9. Rodgers & Bittler et al's No. 2, Green, NWc SW SE 10-23-9. McGinnis & Bittler, No. 6, Teeter, SEc NE NW 15-23-9. Mid-Kansas Oil Co., of Findlay, Ohio, No. 17, Martindale, SEc SW SW SW 31-23-10; No. 18, Martindale, NWc SW SE 31-23-10. Roth & Furot's No. 1, Burk, NWc NE 11-24-8. Rice & Finney & Able's No. 1, Short, SWc NE 4-24-9.

Rooks County—Benedum & Trees' No. 1, Minx, SWc 25-10-9w.

Sedgwick County—J. H. Liggett's No. 1, Funk, NEc NW 11-26-1.

Sumner County—Foster et al's No. 1, French, NWc 13-23-2.

Weekly Comparison of New Wells

Following is a condensed table giving a comparison of permits or locations made for new wells in Kansas, Oklahoma, Arkansas, Louisiana, Texas and California:

	Number of Wells for Week Ending															
	Nov. 15	Nov. 22	Nov. 29	Dec. 6	Dec. 13	Dec. 20	Dec. 27	Jan. 3	Jan. 9	Jan. 16	Jan. 23	Jan. 30	Feb. 6	Feb. 13	Feb. 20	Feb. 27
Kansas	23	36	33	44	12	22	15	..	4	28	20	9	19	22	29	24
Oklahoma . .	61	56	53	68	54	62	37	32	23	43	56	56	80	115	96	108
Arkansas . .	17	16	16	13	21	21	15	12	11	21	20	19	13	29	21	31
Louisiana . .	10	11	23	14	11	..	13	8	13	19	4	9	25	16	20	14
Texas	150	111	156	100	146	281	165	...	64	166	117	158	137	177	207	133
California . .	17	16	14	21	19	26	25	13	19	19	18	10	19	19	18	27
Total	278	246	295	260	263	412	270	134	134	296	235	261	293	378	391	337

ARKANSAS

Nevada County—Autrey Oil Co.'s Womack 5, 10-14-21.

Ouachita County—Freeling et al's Gibson 1, 26-15-17, 200 ft S and E of NWc NE¼ SW¼. Giles et al's Neeley 1, 26-15-16, 200 ft S and E of NWc of Sec. Gulf Ref. Co.'s Werner 36, 32-15-16, 300 ft S and 990 ft E of center; Werner 37, 32-15-16, 330 ft N and 1570 ft E of center. Hunt et al's Haltom C-11, 26-15-17, 200 ft S and W of NEc SW¼ NW¼; Hyatt B-5, 22-15-17, 200 ft S and W of NEc NE¼ SE¼. Kelly et al's Wells 1, 23-15-17, 200 ft N and E of SWc NW¼ NE¼. McCorkle et al's Smith A-2, 25-15-17, 200 ft N and E of SWc S½ NE¼ SW¼. Penguin Oil Co.'s Hardin 1, 27-15-16, old well to be deepened. J. A. Smith's Shirey A-3, 35-15-17, 200 ft N and W of SEc NE¼. Standard Oil Co.'s Alphin 2, 2-16-15, 200 ft N and W of SEc Lot NW¼. The Texas Co.'s Berry 8, 33-15-15, 200 ft S and E of NWc SW¼ NW¼. Timberlake et al's Green 2, 23-15-17, 200 ft S and E of NWc SE¼ SW¼. Whittiken et al's Green 2, 23-15-17, 410 ft S and 660 ft E of NWc SE¼ SW¼.

Union County—J. W. Clark's Palmer 2, 9-16-15, 200 ft S and E of NWc E½ SE¼ SW¼. Gulf Ref. Co.'s Werner 34, 5-16-16, 200 ft N and W of SEc SW¼ NW¼; Werner 35, 6-16-16, 2840 ft N and 1520 ft W of SEc of Section. Hickman et al's Graves 8, 3-16-15, center or west line NW¼ SE¼. Jones & Gonyell's Murphy 1, 36-19-14, 200 ft S and W of NEc SW¼ NE¼. Rutledge Trust's Meeks 4, 6-16-16, 200 ft N and W of SEc SW¼ NW¼.

LOUISIANA

Bossier Parish—Gleaners Oil Co.'s McDade No. 1, 28-19n-11w, 150 ft S and 510 ft W of NE Cor. NE¼ of SE¼.

Caddo Parish—Gulf Ref. Co. of La.'s Ferry Lake No. 222, 16-20n-16w, 400 ft N and 300 ft W of SE Cor. of Sec.

Calcasieu Parish — Gulf Ref. Co. of La.'s Gardner-Noble Gray No. 61, 33-10s-12w, 660 ft W and 447 ft S of NE Cor. of SE¼. Vacuum Oil Co.'s Miller 2, 9-10s-9w, 915 ft E and 725 ft S of NW Cor. SW¼ of NE¼. Vinton Petroleum Co.'s Vincent 15, 34-10s-12w, 1129 ft E and 515 ft N of SW Cor. of Sec.

Claiborne Parish — Triangle Drilling Co.'s Cox 1, 7-19n-5w, 330 ft E and 330 ft S of NW Cor. SW¼ of NW¼. Woodley & Collins' Oakes, et al 1, 8-20n-5w, 530 ft E and 690 ft S of NW Cor. SW¼ of NW¼.

Webster Parish — Alabama Petroleum Co.'s Pardee B-3, 24-21n-10w, 330 ft S and 330 ft W of NE Cor. NE¼ of SE¼. Crusader Oil Prod. Co.'s Hope 15, 25-21n-10w, 330 ft N and 330 ft E of SW Cor. NW¼ of Sec; Hope 16, 25-21n-10w, 990 ft N and 990 ft E of SW Cor. of NW¼; Hope 17, 24-21n-10w, 330 ft N and 330 ft W of SE Cor. of SW¼. Humble Oil & Ref. Co.'s Bodcaw Lbr. Co. B-15, 28-21n-10w, 990 ft S and 330 ft W of NE Cor. of SE¼; Bodcaw Lbr. Co. B-16, 24-21n-10w, 990 ft E and 330 ft S of NW Cor. SE¼ of NW¼; Bodcaw Lbr. Co. B-17, 28-21n-10w, 990 ft S and 990 ft E of Center of Sec; Gray 3, 26-21n-10w, 330 ft E and 900 ft N of SW Cor. NE¼ of SE¼. Louisiana Oil Ref. Co.'s Bodcaw Lbr. Co. 2, 13-21n-10w, 330 ft N and 330 ft E of SW Cor. SW¼ of NE¼. Moffitt & Murphy's Coyle 3, 28-21n-10w, 330 ft N and 330 ft E of NW Cor. NE¼ of SW¼. Oil Fields Gas Co.'s Simpson 1, 3-22n-10w, 200 ft E and 200 ft S of NW Cor. of NE¼.; Jordan-Young 2, 34-23n-10w, 250 ft E and 250 ft S of NW Cor. SE¼ of SW¼. The Palmer Corp.'s Tillman 2, 28-21n-10w, 630 ft N and 300 ft E of SW Cor. NW¼ of NE¼.

TEXAS

Archer County—Prairie Oil & Gas Co.'s Ranger, Texas, L. F. Wilson D. 32, Amer. Trib. sur, no location. Davis-White Oil Co.'s Staley Bldg., Wichita Falls, Texas, Roach & Junker 7, 1594 TE&L sur, 324 ft S No. 6. Roy I. Carter's, City Nat. Bank Bldg., Wichita Falls, Texas, J. H. White E 21, Amer. Trib. sur., 150 ft to S and E lines. Daniels & Rutis', Waggoner Bldg., Wichita Falls, Texas, Stampfli & Roberts 3, 2408 TE&L sur., 150 ft to N and W lines. Clark, Harbin & Baldridge's, City Nat. Bank Bldg., Wichita Falls, L. Echols 7, T. L. Anderson sur., 150 ft to S and 575 ft to E lines. Young & Looney's, Archer City, Texas, T. A. Matthews 1, J. Antone sur., 852 ft to W and 150 ft to S line. Margee & Stipe's, Electra, Texas, Richardson 1, G. P. Diggs sur., 150 ft to S and W lines. A. T. Wolfe & Sons', Staley Bldg., Wichita Falls, Texas, W. H. Chilson 2, D. C. S. L. sur., 300 ft E No. 1. Panhandle Ref. Co.'s, Wichita Falls, Texas, Abercrombie & Taylor 4, Club Ranch sur., 150 ft to S and W line. Young & Looney's, Archer City, Texas, C. L. Abercrombie 1, Wm. Cound sur., 150 ft to S and W lines. Swastika Oil Synd.'s, Olney, Texas, A. P. Neal 4, D. White sur, 150 ft to S and E lines. Mutual Oil Co.'s, Fort Worth, Texas, H. Harmel 7, 2401 TE&L sur, 312 ft W No. 8; H. Harmel 8, 2401 TE&L sur, 150 ft to S and 1086 ft to W line. Humble Oil & Ref. Co., Wichita Falls, Texas, Stampfli & Roberts 3, 2408 TE&L sur, 150 ft to S and W lines; Stampfli & Roberts 4, 2408 TE&L sur, 318 ft N No. 3; Stampfli & Roberts 5, 2408 TE&L sur, 150 ft to N and W lines; Stampfli & Roberts 6, 2408 TE&L sur, 150 ft to N and E lines. County Line Oil Co.'s, Wichita Falls, Texas, Stampfli & Roberts 5, 2408 TE&L sur, 150 ft to N and E lines. Davis-Hart Co.'s, Staley Bldg., Wichita Falls, Texas, Roach & Junker 7, 1594 TE&L sur, 300 ft S No. 6. Ray & Massie's, City Nat. Bank Bldg., Wichita Falls, Texas, F. A. Hausler 14, Thos. McCoy sur, 50 ft S No. 7. Stidham & Thrasher's, Electra, Texas, J. H. White 15, Amer. Trib. sur, NE cor. Roxana Petroleum Co.'s, South Bend, Texas, J. M. Kunkel 7, Thos. McCoy sur, 300 ft N No. 6. Texas Co.'s, Wichita Falls, Texas, W. J. Rogers B 10, R. Neuman sur, 150 ft to S and E lines; R. E. Hill 3, 2408 TE&L sur, 1366 ft to W and 150 ft to S line. Gulf Production Co.'s, Fort Worth, Texas, J. M. Kunkel 2, Hardaway & McCoy sur, 300 ft N No. 1; A. P. Nichols 10, S 37, Amer. Trib. sur, 300 ft W No. 9; V. E. Samp-

Eclipse Deepwell Pulling Machine

Weight

Safety Standard up to 2000 ft. 2" Tubing Weight.....3075

Safety Special up to 3000 ft. 2" Tubing Weight.....3385

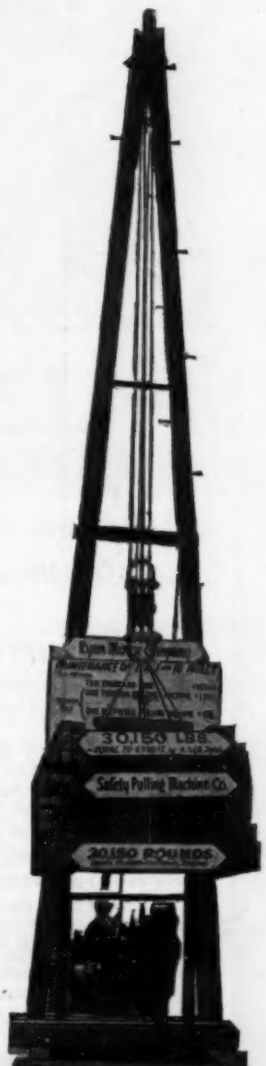
Weight

Eclipse Std. up to 2000 ft 2" Tubing Weight.....2785

Eclipse Special up to 3000 ft. 2" Tubing Weight.....3000

Eclipse Deepwell up to 8000 ft. 2" Tubing Wt. 3645

Wreckers also made to order, approximate weight 5000 lbs. One of our customers stated that he has pulled a weight equal to 100 tons with one of these machines.



Specifications Deep Well

Mast 8x10x36 ft., Douglass Fir A-Style, Two Wheel Truck, two 16" Bronze bearing crown pulleys, 2¾ Steel Pin mounted in malleable boxings. Large supporting plate 16" dia. between crown pulleys, eliminating any chance of bending pin.

Reel or Drum: 32 lb. 8¾ casing filled with concrete for winding drum, differentials banded with 3/16 band iron, brake surface 6"x40", choke brake style same as star drilling machine.

The whole reel assembly is mounted on 2¾ square steel shaft extending clear through reel, secured by three heavy castings.

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SAFETY PULLING MACHINE COMPANY

INDEPENDENCE, KANSAS

ffi 2, 2408 TE&L sur, 150 ft to S and E lines; V. E. Stampffi 3, 2408 TE&L sur, 321 ft N No. 1; J. F. Rogers 3, 2406 TE&L sur, 926 ft to E and 150 ft to S line; T. L. Griffin A 9, 1600 TE&L sur, 150 ft to N and W lines.

P. J. White's, City Nat. Bank Bldg., Wichita Falls, Texas, W. J. Kunkel 4, S. G. Hardaway sur, East of No. 1; W. J. Kunkel 2, S G. Hardaway sur, 300 ft N No. 1; W. J. Kunkel 3, S. G. Hardaway sur, 300 ft E No. 1. Riner & Bailey's, Waggoner Bldg., Wichita Falls, Texas, L. F. Wilson 15, Amer. Trib. sur., 300 ft S No. 14; L. F Wilson 14, Amer Trib sur, 300 ft S No 13 Texhoma Oil & Ref. Co.'s, Wichita Falls, Texas, Mrs. R. E. Harbison 9, S. Anderson sur, 400 ft S No. 4; A. M. Kunkel 1, G. W. Seel sur, 150 ft to N and 750 ft to E line.

Brown County—Mahlsteadt Mook Oil Co.'s, Fort Worth, Texas, G. B. Gaines 3, Wm. Miller sur, 150 ft to S and E lines; J. W. Newton 4, Wm. Miller sur, 364 ft S No. 2.

Baylor County—C. W. Boller's, Bradford Supply Co., Wichita Falls, Texas, F. Marek 1, T&NO Ry. sur, 671 ft to E and 697 ft to N line. C. H. Verschoyle's, Bob Waggoner Bldg., Wichita Falls, Texas, J. W. Stevens 1, Jas. Sullivan sur, 1800 ft to N and 1100 ft to E line. Ted Harris', Wichita Falls, Texas, F. Howe 1, 2452 TE&L sur, 150 ft to N and W lines.

Bexar County—J. H. Gilliland's, Travis Bldg., San Antonio, Texas, S. F. Gonzales 4, A. McSnyder sur, 200 ft to W and 400 ft to S line. W. M. Morgan's, 808 East Houston, San Antonio, Texas, L. Wilkie 1, 500 ft to N and 150 ft to E line. Grayburg Oil Co.'s, San Antonio, Texas, A. F. Ernst 32, W. C. Brown sur, 1200 ft N No. 31. Hitchman & Howard's, Travis Bldg., San Antonio, Texas, W. H. Brown Est. 11, 600 ft E No. 1.

Callahan County—Morrison, St. John & Kleiner Bros.', Cisco, Texas, B. E. Rutherford 7, Bayland Asy. sur, 150 ft to S and 1110 ft to E line; B. E. Rutherford 8, Bayland Asy. sur, 150 ft to S and 1410 ft to E line; B. E. Rutherford 9, Bayland Asy. sur, 150 ft to S and 621 ft to W line; B. E. Rutherford 10, Bayland Asy. sur, 150 ft to S and 810 ft to E line; B. E. Rutherford 11, Bayland Asy. sur, 150 ft to S and 210 ft to E line; B. E. Rutherford 12, Bayland Asy. sur, 150 ft to S and 321 ft to W line; B. E. Rutherford 13, Bayland Asy. sur, 150 ft to W and 450 ft to N line; B. E. Rutherford 14, Bayland Asy. sur, 210 ft to E and 150 ft to S line; B. E. Rutherford 15, Bayland Asy. sur, 150 ft to W and 1050 ft to N line. Electra-Callahan Oil Co.'s, Electra, Texas, J. H. Ogle 5, 2297 TE&L sur, no location. Andrew Urban's, Abilene, Texas, Mrs. A. C. Alvoid 1, Bayland Asy. sur, 600 ft to W and 800 ft to N line. A. C. McDonald's, Putnam, Texas, Mrs. A. S. Lobban 8, 2995 TE&L sur, 300 ft N No. 7. Shertzer Bros.', Cisco, Texas, Shackelford 5, 2270 TE&L sur, 300 ft W No. 3. Frank Nickel's, Box 55, Cisco, Texas, S. M. Davis 3, Bayland Asy. sur, 300 ft N No. 2; S. M. Davis 4, Bayland Asy. sur, 325 ft W No. 1; S. M. Davis 5, Bayland Asy. sur, 160 ft to W and 150 ft to S line; S. M. Davis 6, Bayland Asy. sur, 350 ft W No. 4; G. Brandon 1, Bayland Asy. sur, 150 ft to S in center of line. J. C. McNeill's, Box 285, Putnam, Texas, C. C. Fosdick 1, sur 132, blk 3, NW cor. Multi-Chance Dev. Co.'s, Box 84, Putnam, Texas, H. Wagley 1, J. B. Teague sur, 150 ft to E in center of line. Miller Bros.', Breckenridge, Texas, J. E. Dunaway 1, GC&D Ry sur, 450 ft to E and 150 ft to S line. J. R. Ball et al's, Moran, Texas, Kennedy 2, Bayland Asy. sur, 150 ft to N in center of line. B. A. Duffy's, Putnam, Texas, J. T. Davis 3, Bayland Asy. sur, 387 ft W No. 2; W. M. Isenhour 6, Bayland Asy. sur, 300 ft W No. 5. Edington et al's, Cisco, Texas, J. H. Johnson 1, Bayland Asy. sur, no location. Godley Oil & Gas Co.'s, Henrietta, Texas, R. L. Buchanans 10, Bayland Asy. sur, 300 ft S No. 9. Hutton & Haggard's, Box 135, Cisco, Texas, J. T. Danit 6, Bayland Asy. sur, 150 ft to S and E lines; J. T. Danit 7, Bayland Asy. sur, 300 ft W No. 6. W. R. Andrews et al's, Putnam, Texas, Mrs. R. D. Williams 27, 2974 TE&L sur, 350 ft N No. 25; Mrs. R. D. Williams 28, 2974 TE&L sur, 150 ft N No. 5. Borealis Oil Co.'s, Southwestern Life Bldg., Dallas, Texas, H. Wagley F 3, D&D Asy. sur, 770 ft to E and 221 ft to S line. Knox, Lewis & Sweeney's, Daniels Hotel, Cisco, Texas, W. M. Isenhour 1, Bayland Asy. sur, 300 ft to N and 155 ft to W line.

Caldwell County—United North & South Oil Co.'s, Luling, Texas, W. H. Tabor 18, N. Reaville sur, 162 ft to E and 150 ft to S line; W. H. Tabor 19, N. Reaville sur, 756 ft E No. 16; M. Moore 12, Jno. Henry sur, no location.

Crockett County—Kanawha-Angelo Oil Co.'s, San Angelo, Texas, University 1, sur 9, blk. 52, 300 ft to N and 1600 ft to E line.

Clay County—Shiffer & Culberson's, Box 125, Petrolia, Texas, R. T. Green 1, Byers Bros. sur, 400 ft to N and 1000 ft to E line.

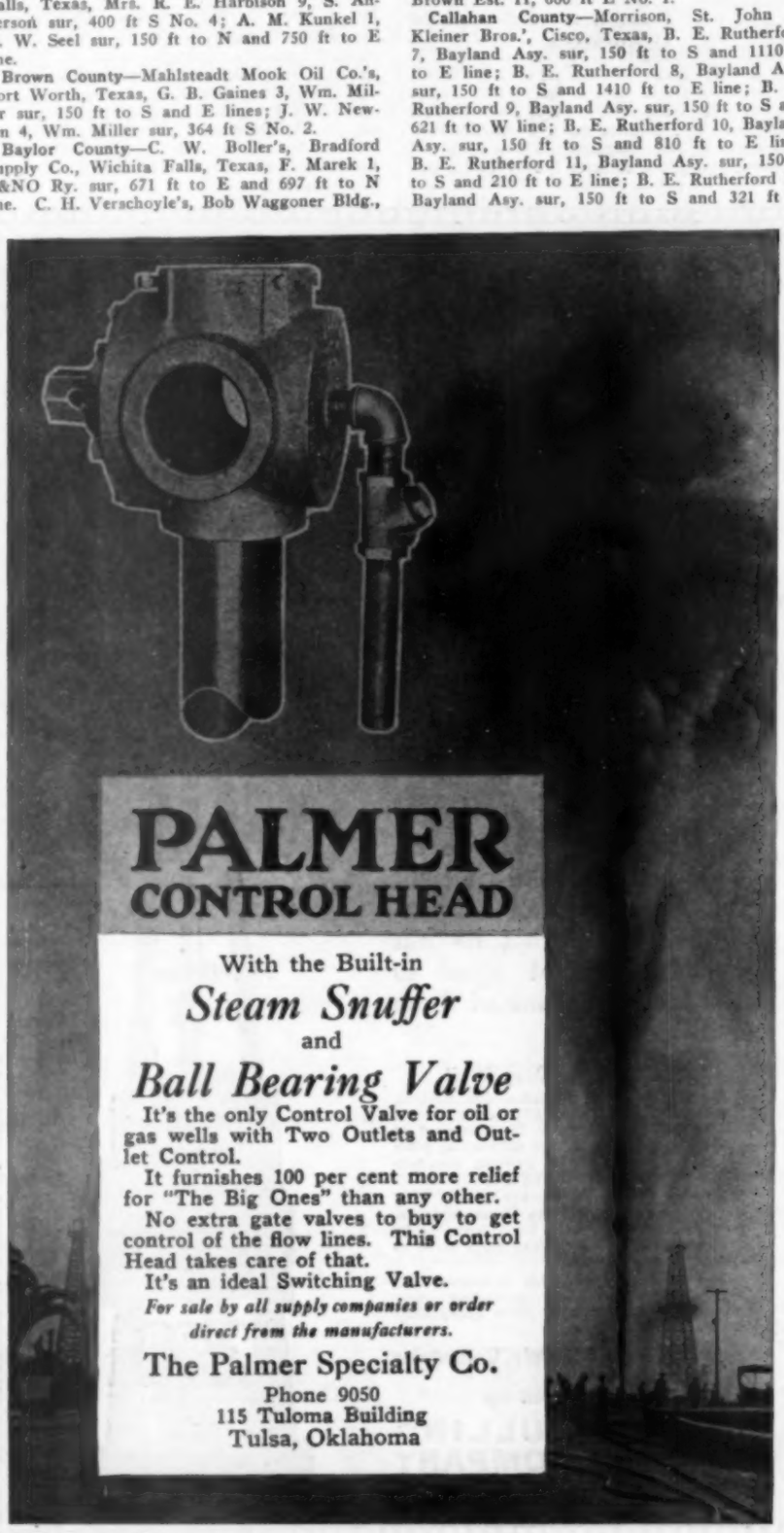
Eastland County—States Oil Corp.'s, Eastland, Texas, C. F. Hamor 5, H&TC Ry. sur, 765 ft to W and 250 ft to N line. J. M. Hickey's, Cisco, Texas, W. R. Amis 1, ET Ry. sur, 150 ft to N and E lines. Rosell Oil Co., Inc.'s, Breckenridge, Texas, W. E. Rice 1, Robinson sur, 150 ft to S and W lines. Porter Dev. Co., Inc.'s, Eastland, Texas, L. C. Downtain 1, J. House sur, 300 ft to N and W lines. R. S. Allen's, Wichita Falls, Texas, A. J. Elliott 1, S. J. Robinson sur, 150 ft to N and W lines. Brown & Co., Inc.'s Breckenridge, Texas, E. P. Akin 2, Insane Asy. sur, 801 ft E No. 1.

Freestone County—Texas Co.'s, Houston, Texas, Watson 4, R. B. Longbotham sur, no location. Ramsey & Buttram Pet. Corp.'s, Braniff Bldg., Oklahoma City, Okla., A. B. Munson 2, Wm. Richie sur, 100 ft to S line. Rio Bravo Oil Co.'s, S. P. Bldg., Houston, Texas, H&TC Ry. 14, R. B. Longbotham sur, center.

Grimes County—J. E. Cuthrell, Johnson, Goolsbee & Wallace's, Navasota, Texas, J. E. Cuthrell 3, P. B. O'Connor sur, 1500 ft to W and 400 ft to N line.

Guadalupe County—Pittman & Billingsley's, Luling, Texas, H. Thomas 1, R. Smith sur, south central.

Harris County—Gulf Production Co., Houston, Texas, Stateland Oil Co. 32, Tabbs Bay sur, south central; Beaumont Pet. Co. 30, Tabbs Bay sur, SW cor; H. Busch 2, Wm. Scott sur, 40 ft to N and 56 ft to E line; C. Gaillard A 10, Wm. Scott sur, 50 ft to S and W lines. J. M. Hester's, Humble, Texas, Geo.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Herman 71, J. B. Jones sur, 300 ft S No. 7. Humble Oil & Ref. Co.'s, Houston, Texas, Simms-Smith 61, Wm. Scott sur, 300 ft E and 100 ft S of No. 56.

Hunt County—Atlantic Oil Prod. Co.'s, Dallas, Texas, F. W. Meadows 1, J. Levins sur, 160 ft to N and E lines. Kelly & Tallal's, Kirby Bldg., Dallas, Texas, J. W. Barnett 1, A. Smith sur, 300 ft to N and W lines.

Jim Hogg County—Edward St. Albans', Hebbronville, Texas, R. Holbein 4, R. Holbein sur, no location; R. Holbein 5, R. Holbein sur, no location; R. Holbein 6, R. Holbein sur, no location.

Jefferson County—Houston Oil Co.'s Houston, Texas, S. W. Pipkin 2, Wm. McFaddin sur, 50 ft to W in center of line.

Liberty County — Gulf Production Co.'s, Houston, Texas, A. Barrett 1, M. G. White sur, 50 ft to N and E lines. Sun Oil Co.'s, Beaumont, Texas, Shade Fee 1, D. Minchey sur, 250 ft to E and 140 ft to N line. Vacuum Oil Co.'s, Gulf Bldg., Houston, Texas, Barrett 2, M. G. White sur, 280 ft to N and 50 ft to E line. Houston Production Co.'s, Scanlan Bldg., Houston, Texas, H. Taylor 9, J. Devore sur, 135 ft to N and 155 ft to E line.

McMullen County—R. P. Lightfoot & Co.'s, Callihan, Texas, Lark 4, E. W. B. Scrugham sur, 300 ft N No. 3; Lark 5, E. W. B. Scrugham sur, 155 ft to S and W lines. Roxana Petroleum Corp.'s, Houston, Texas, McCowan 1, I&GN Ry. sur, 450 ft to W and 150 ft to S line. Three Rivers Oil Co.'s, City Nat. Bank Bldg., San Antonio, Texas, Glass 4, Healey & Garner sur, 300 ft NW No. 3.

Milam County—Fogle Oil Co.'s, Minerva, Texas, McClellan 14, Burchard sur, 150 ft to S and E lines. W. W. Bynum's, Minerva, Texas, C. F. Niehaus 9, T. J. Chambers sur, SE of No. 10. W. W. Bynum's, Minerva, Texas, C. F. Niehaus 10, T. J. Chambers sur, SE of No 3.

Navarro County—G. C. Kent's, Corsicana, Texas, F. P. Caffy 1, Jno. McNeal sur, 150 ft to N and W lines. Pure Oil Co.'s, Mexia, Texas, R. Kent 12 A, Hrs. J. Smith sur, 415 ft NE No. 10. Penn & Windsor's, Magnolia Bldg., Dallas, Texas, W. P. Absher 1, T. J. Jourdan sur, 50 ft to S and W lines. Humble Oil & Ref. Co.'s, Houston, Texas, R. I. Kent 8, Hrs. J. Smith sur, 150 ft to S and W lines; B. F. Irvine C 14, J. Taylor sur, 457 ft S No. 7; B. F. Irvine C 15, J. Taylor sur, 300 ft N No. 4; B. F. Irvine C 16, J. Taylor sur, 300 ft N No. 15; B. F. Irvine C 17, J. Taylor sur, 300 ft S No. 3.

Nacogdoches County—Wm. Gross et al's, Slattery Bldg., Shreveport, La., J. W. Cariker 1, W. R. Warnell sur, 250 ft to S and E lines.

Orange County—Gulf Production Co.'s, Houston, Texas, M. Granger 1, Wm. Dyson sur, 758 ft to N and E lines.

Palo Pinto County—E. T. Hart, F. & M. Bank Bldg., Fort Worth, Texas, E. A. Cardwell 1, T&P Ry. sur, 275 ft to N and 165 ft to E lines; E. A. Cardwell 2, T&P Ry. sur, 600 ft to E and 850 ft to S line.

Reagan County—Krupp & Pickrell's, Big Lake, Texas, University 2, sur 26, blk 9, 1320 ft to S and W lines; University 3, sur 26, blk 9, 660 ft to S and W lines; University 6, sur 39, blk 9, 660 ft to N and W lines; University 7, sur 39, blk 9, 1980 ft to N and 660 ft to W line; University 8, sur 39, blk 9, 1980 ft to S and 660 ft to W line; University 9, sur 39, blk 9, 660 ft to S and W lines. Big Lake Oil Co.'s, Best, Texas, University 20, sur 1, blk 2, 660 ft to S and W lines; University 21, sur 1, blk 2, 660 ft to N and E lines; University 22, sur 1, blk 2, 1980 ft to N and 660 ft to E line; University 23, sur 1, blk 2, 1980 ft to S and 660 ft to E line; University 24, sur 1, blk 2, 660 ft to S and E lines.

Refugio County—Pratt-Hewitt Oil Corp.'s, Refugio, Texas, F. B. Rooke 7, T. Mullen sur, 900 ft to N and 1000 ft to E line.

Shackelford County—Dr. Chas. Wm. Wallace's, Wichita Falls, Texas, G. E. Waters 1, Univ. Lands sur, 150 ft to N and W lines. L. B. Tannehill, Albany, Texas, E. Riske 1, Blind Asy. sur, 230 ft to S and 160 ft to E line; Mrs. V. Palm 5, Blind Asy. sur, 160 ft to W and 1600 ft to S line; R. J. Moberly 10, T&P Ry. sur, 500 ft W No. 4. Jno. Sherrin

Illustrating the Landscape with a blade of grass

WE WISH to remind dealers in oil country equipment that while the Stewart Safety Sucker Rod Hook is distributed by the Walter O'Bannon Company of Tulsa, we make other equipment as easy to sell and as sure to repeat.

We have been in every issue of The OIL WEEKLY for more than five years, and we've said so much about Stewart Safety Sucker Rod Hooks that it has been like illustrating the landscape with a blade of grass.

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et al's, Cisco, Texas. I. W. Littlefield 1, Insane Asy. sur, 150 ft to N and W lines; J. W. Littlefield 2, Insane Asy. sur, 1200 ft S No. 1. Graham & Lash's, Moran, Texas, J. T. Cockrell 1, Insane Asy. sur, 150 ft to N and 750 ft to E line. V. A. Hinds, Moran, Texas, W. W. Morris 1, Blind Asy. sur, 450 ft to E and 750 ft to S line. Tomlinson & Cox's, Moran, Texas, J D. Fite 1, Univ. Lands sur, 450 ft to N and 800 ft to E line. Hope Petroleum Corp.'s, Exchange Nat. Bank Bldg., Tulsa, Okla., E. A. Jeter 1, T&P Ry. sur, 330 ft to N and W lines. G. A. Powell's, Box 117, Moran, Texas, C B Snyder 1, Insane Asy. sur, 150 ft to N and W lines. J. M. Hickey et al's Cisco, Texas, J. W. Littlefield 6, Insane Asy. sur, east of No. 4; J. W. Littlefield 7, Insane Asy. sur, south of No. 4; M. C. Townsend 1, Univ. Lands sur, 150 ft to N and E lines. W. F. Belcher's Box 691, Moran, Texas, L. M. Watson 10, Univ. Lands sur, 450 ft to S and W lines.

Stephens County—B. F. Kleinfelder's, Box 1132, Breckenridge, Texas, W. J. Conner 2, Insane Asy. sur, 250 ft to S and E lines. Curry Pool Oil Co.'s, Pitlock Bldg., Portland, Ore., D. J. Jones 2, Blind Asy. sur, 350 ft to S and E lines. Texas Co.'s, Breckenridge, Texas, J. W. Baprks A 41, 3369 TE&L sur, 1707 ft to N and W lines; J. W. Baprks 42, 3369 TE&L sur, 550 ft to N and 1703 to E line. Landreth Prod. Corp.'s, Breckenridge, Texas, K. Gatz 2, 2027 TE&L sur, 2420 ft to E and 2101 ft to S line. Weaver Oil Corp.'s, Box 957 Eastland, Texas, I. Boles 2, T&P Ry. sur, 250 ft to N and 380 ft to W line. J. L. Thompson's, Ranger, Texas, J. M. Williams 3, T&P Ry. sur, 650 ft to W and 150 ft to N line. Texas Fidelity Oil Corp.'s, Frankell, Texas, W. R. Ashmore 1, T&P Ry. sur, SW cor. Texas Pacific Coal & Oil Co.'s, Ranger, Texas, T. L. Adams 6, T&P Ry. sur, North central; E. T. Kirthley 4, 1025 TE&L sur, North central; Chas. Binney 49, T&P Ry. sur, South central; S. A. Pearce 2, T&P Ry. sur, NE cor. Thompson Oil Corp.'s, Ranger, Texas, J. M. Williams 4, T&P Ry. sur, 150 ft to N and 230 ft to W line.

Scurry County—Northwest Co.'s, First Nat. Bank Bldg., Denver, Colo., J. J. Moore 2, H&TC Ry. sur, 690 ft N No. 1.

Throckmorton County—Panhandle Ref. Co.'s, Wichita Falls, Texas, L. T. Richards 1, TE&L sur, south central; L. T. Richards 2, TE&L sur, 350 ft N No. 1. Plains Prod. Co.'s, Staley Bldg., Wichita Falls, Texas, R. E. Erwin 1, Giberath sur, 150 ft to S and E lines. J. B. Ross, Texas Hotel, Fort Worth, Texas, Travis County 1, T.C.S.L. sur, center.

Wichita County—Shaw & Lee's, Wichita Falls, Texas, A. V. McCarty 7, S. O. Fowler sur, 50 ft S No. 2; A. V. McCarty 8, S. O. Fowler sur, 50 ft N No. 1. Ryan Petroleum Co.'s, Bartlesville, Okla., Geo. Nance 29, S. O. Fowler sur, 360 ft W No. 25. W. M. Moore's, Waggoner Bldg., Wichita Falls, Texas, T. L. Burnett 3, HT&B Ry. sur No. 7, 335 ft N No. 2. Jas. E. Parker's, Wichita Falls, Texas, M. A. Love 1, Kincaid sur, 150 ft to N and W lines. Texhoma Oil & Ref. Co.'s, Wichita Falls, Texas, S. B. Burnett E 1, T&NO Ry. sur, 510 ft to N and 935 ft to W line. Phillips & Michna's, City Nat. Bank Bldg., Wichita Falls, Texas, S. B. Burnett 17, HT&B Ry. sur, 300 ft S No. 15. Huggins & Tenbrink's, Box 895, Burkburnett, Texas, C. Birk 3, Wm. Powell sur, 160 ft to N and 150 ft to W line. Petroleum Prod. Co.'s, City Nat. Bank. Bldg., Wichita Falls, Texas, M. Staniforth 12, H. B. Balch sur, 150 ft to N and W lines; Kemp & Allen 3C, J. A. Kemp sur, 350 ft W No. 2. Rubsam & Hunter's, Kemp Kort, Wichita Falls, Texas, W. D. McClure 7, GC&SF Ry. sur, 300 ft N No. 2. Bullington et al's, Wichita Falls, Texas, A. V. McCarty 7, S. O. Fowler sur, 50 ft E No. 4. Mutual Oil Co.'s Fort Worth, Texas, J. E. Roller 12, Day Land & Cattle sur, 150 ft to W and 80 ft to S. Mason & Craig's, Wichita Falls, Texas, S. L. Denny 3, Cowherd Bros. sur, 300 ft N No. 2. H. J. Fisher's, Box 45, Newport, N. Y., Mrs. B. Parker 9, J. McCool sur, 150 ft to S and W lines. Fuller & Knotts', Staley Bldg., Wichita Falls, Texas, J. W. Snow 1, HT&B Ry. sur, 165 ft to N and 150 ft to W line. Ramond McCain's, 810 Bluff St., Wichita Falls, Texas, E. H. F. Rathke 3, S.F.I.W. sur, 300 ft W No. 1.

Wilbarger County—Mutual Oil Co.'s, Fort Worth, Texas, C. Zipperlee 3, H&TC Ry. sur, 320 ft S No. 1. Bridwell, Heydrick & Palmer's, Wichita Falls, Texas, W. H. Stephens 7, H&TC Ry. sur, 50 ft S No. 1; S. A. Dill 5, H&TC Ry. sur, 300 ft S No. 2. Magnolia Petroleum Co.'s, Dallas, Texas, H&TC Ry. Fee 67, sur 15, blk 13, 500 ft NW No. 66. Staley & Wynne's, Staley Bldg., Wichita Falls, Texas, W. H. Stephens 3, H&TC Ry. sur, 150 ft to S and W lines. Ray & Massie's, City Nat. Bank Bldg., Wichita Falls, Texas, Bond, Hawkins & Williams 7, H&TC Ry. sur, 50 ft W No. 1. C. Andrade's, Kemp Hotel, Wichita Falls, Texas, J. S. Archer 1, H&TC Ry. sur, 1558 ft to N and 2325 ft to E line.

Webb County—Magnolia Petroleum Co.'s, Dallas, Texas, H. Garcia 1, Y. Giterrez sur, 680 ft to W and 570 ft to S line. Cintex Petroleum Co.'s, Box 636, Laredo, Texas, E. Garcia 7, sur 592, blk 50, 350 ft E No. 3.

Wharton County — Gulf Production Co.'s, Houston, Texas, H. Hackstedt 1, S. F. Austin sur, 679 ft to W and 1305 ft to S line.

Young County—Texhoma Oil & Ref. Co.'s, Wichita Falls, Texas, W. E. Gambrell 4, BBB& C Ry. sur, 346 ft S No. 2; W. E. Gambrell 5, BBB&C Ry. sur, 333 ft W No. 3. Lash & Lehman's, Box 1043, Wichita Falls, Texas, S. B. Kemp 8, 401 TE&L sur, 1050 ft to W and 500 ft to S line. Gulf Production Co.'s, Fort Worth, Texas, H. M. Gass 1, 1592 TE&L sur, 150 ft to N and E lines. Texas Co.'s, Wichita Falls, Texas, W. E. Gambrell 4, BBB&C Ry. sur, 294 ft N No. 5; W. E. Gambrell 5, BBB&C Ry. sur, 294 ft N No. 3.

William V. Ward, representing the Ward Chemical Company, Tulsa, Oklahoma, was a business visitor to Houston last week.

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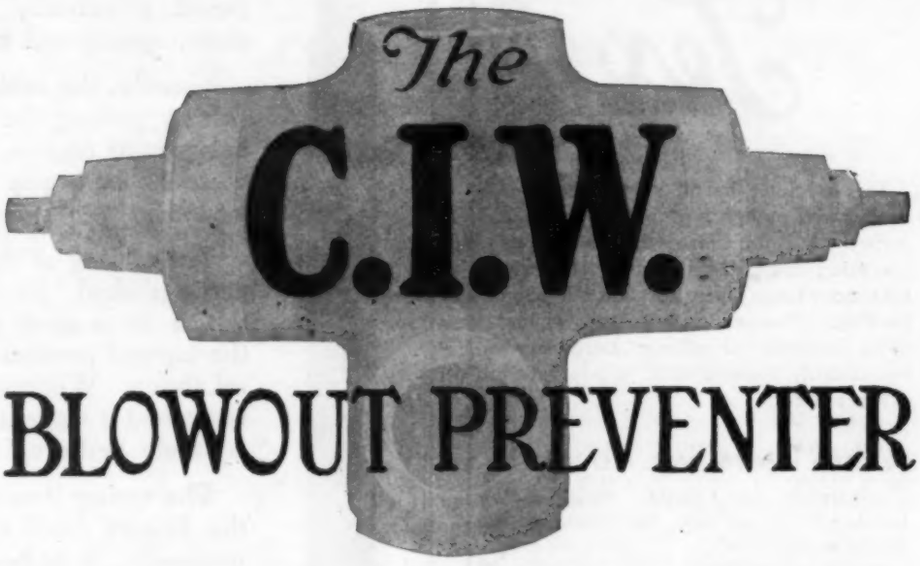

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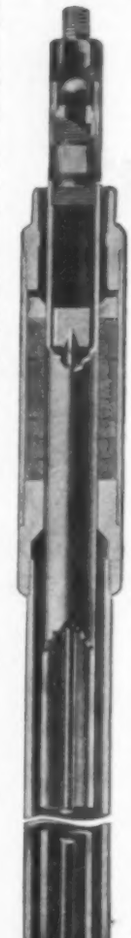

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This working barrel solves the modern oil well pumping problem. A REAL money saver for those who want to cut operating costs down to the very bone. Has no cups. Does not cut oil. Self-packing. Pumps floating sand. Eliminates frequent rod pulling. Large capacity. Sturdy construction. Up-to-date in every respect.

What Users Say About It:

ARDMORE, OKLAHOMA. "We have no trouble with cut oil from this Barrel, and no trouble of any kind."

AUGUSTA, KANSAS. "The Tex Barrel is giving us real service so far."

HUMBLE, TEXAS. "The Barrel has been pumping six weeks without trouble. Previously we were forced to pull once or twice a week."

WICHITA FALLS, TEXAS. "So far this Barrel works like a charm, and our trouble with cut oil is no more."

TONKAWA, OKLAHOMA. "The Tex Barrel has been giving perfect satisfaction."

SMACKOVER, ARKANSAS. "The Tex Barrel was installed on April 12th, and to date (May 10th) has given very satisfactory service."

WILSON, OKLAHOMA. "I am glad to report that the Barrel is performing wonderfully."

DRUMRIGHT, OKLAHOMA. "We have had no trouble with the Barrel since it was installed."

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How This Famous Fishing Tool Works

A glance at the illustration here shown will reveal that the Devil's Steel Hand is composed principally of barrel, plate, spring and fingers.

Usually, the tool catches its fish by getting the lost article between its fingers, which then close up in a grip that won't let loose.

The closing of the fingers is accomplished by the plate which is pushed down over the tapered portion by the barrel above. Wherever the plate is pushed it stays until the fish is safely "ashore."

The spring is to PREVENT the fingers from closing prematurely. It is because 1000 lbs. pressure is required before the fingers begin closing in that the Devil's Steel Hand is such a wonder in fishing through cavings.

The operation is simple enough, but the effect is extraordinary. Job after job given up as hopeless is yielding to these tools. It is to your interest to know more about them.

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DEVIL'S STEEL HAND AND PITCHFORK

WILDCATS FROM ALL SECTIONS

Texhoma Gets Second Well In Nocona Shallow Field

Wichita Falls, Texas, March 2.—Texhoma Oil and Refining Company's second test on the N. J. Howard farm in the Nocona shallow oil and gas field in upper Montague County pumped 95 barrels initial when placed on the jack early this week from sand at 988 to 1002 feet. This well is 300 feet due south of Texhoma's first well, which pumped 50 barrels of green colored heavy oil during a 20 hour gauge taken last November from sand at 821-55 feet, but the latter has since been shut in for storage. The new producer establishes a second shallow oil sand for the lease, and a third test is being started midway between the two completed wells. Crude produced by the No. 2 Howard tests about 26 gravity, but offers a good lube content. Prairie has a small pipe line extended from Oklahoma to serve this new oil field, and is purchasing about 75 barrels daily from The Texas Company's Isaac Gist 2-A, which is producing 30.5 gravity oil from sand at 919-29 feet.

The shallow oil sand in the Nocona area is somewhat spotted, as indicated by the failure of the Owenwood Corporation's M. H. Salmon 1 and The Texas Company's M. H. Salmon 1 to show oil after drilling below 1000 feet. Texas Company's Gist 3-A also missed the shallow oil pay, and is drilling in shale below 1405 feet. The Humphreys-Boyd Oil Company is making use of a diamond core drill to deepen its J. W. Maddox 3, section 5, C. W. Thompson survey, to gain subsurface information in the Nocona field, and at last reports was drilling below 2015 feet. The Humphreys-Boyd Company's W. W. Jones 1 is testing gas sand at 410 feet, and has made locations to drill a fourth test on the Maddox farm, and a test on the N. J. Howard lease.

Bruce Larkin, White and Panhandle Refining Company's wildcat test on the T. S. Richards land, A. J. Morgan survey, in the south central part of Throckmorton County, uncovered a heavy flow of dry gas from shallow pay at 1265 feet. The gasser is estimated good for 10 million cubic feet daily, and will be shut in for fuel. It is located in section 23, and about eight miles south of the town of Throckmorton.

Kansas Wildcats

BARBER COUNTY—R. D. Brown's No. 1, NWc SW NE 33-30-1w, sd 3741 ft.

BARTON COUNTY—Cheyenne Oil Co.'s No. 1 Sooy, SWc SW 27-18-12w, sd 3525 ft. Haynes et al's No. 1, NWc 21-12-12w, sd 2100 ft. Mountain States Oil Co.'s No. 1, SEc NE 22-18-13w, dr 3840 ft. Huffine et al's Smith 1, C NE SW 21-19-12w, fsh 1365 ft.

CLARK COUNTY—Watchorn Oil & Gas Co.'s No. 1 Morrison, SEc NE NE 2-22-1w, sd 4950 ft.

COFFEY COUNTY—Sunbeam Pet. Co.'s No. 1 Andrew, NWc NE 30-20-15, rig. Manhattan Oil Co.'s Elliott 1, NWc SW 14-33-13, sd 350 ft. Barden Bros.' Beyer 1, SEc NW 13-22-13, dr 1200 ft. Tidal Oil Co.'s Barr 1, SWc NW SW 13-23-13, sd 1850 ft.

CLOUD COUNTY—Livingston et al's Murdock 1, NEc 7-6-4w, sd 365 ft.

FINNEY COUNTY—Garden City O. & G. Co.'s Wann 1, SEc SE 36-21-20, sd 2890 ft.

GEARY COUNTY—Liberty-Texas Oil Co.'s Wright 1, NEc 9-12-6, sd 750 ft; Foster 1, NEc SW 3-12-6, sd 2000 ft.

GOVE COUNTY—Keyes Bros. & Marine's Bowman 1, NWc SW 23-13-26w, lcn.

GRAHAM COUNTY—Keyes Bros. & Marine's Taxton 1, SEc NW 23-8-24w, sd 2000 ft. Gruen & Shiler's Baker 1, NWc SE NW 17-10-24w, rig.

JEFFERSON COUNTY—Northern Counties' Edwards 1, SEc NW NW 13-8-9, sd 3405 ft.

KINGMAN COUNTY—Hale et al's Graber 1, SWc NW 34-27-7w, ur 2543 ft. D. P. Floeger's Richardson 1, C SW SE 10-27-7w, machine.

LABETTE COUNTY—Ark Fuel Oil Co.'s Sparks 1, NEc SE SE 14-31-17, sd 1100 ft.

LINCOLN COUNTY—Berry & Rosenthal's Lambert 1, C NW 31-12-10w, sd 3258 ft. Amerada Pet. Corp.'s Crawford 1, NEc SW SE 16-11-7w, dr 3235 ft. Equity Oil Co.'s Jellison 1, NWc SE 19-13-9w, fsh 2710 ft. Scott & Collins' Stone 1, SEc SW NE 19-11-6w, sd 500 ft.

NEMAHA COUNTY—Nemaha O. & G. Co.'s No. 1 Meyers, NWc 19-3-11, sd 3250 ft.

OSAGE COUNTY — Rodgers & Bittle's Bertha 1, SEc NW 22-17-16, lcn. Mul-Vit Dev. Co.'s Neil 1, NEc NW SW NE 8-17-17, sd 2735 ft. Baker et al's No. 1, C SE SE 3-10-14, sd 260 ft.

POTTAWATOMIE COUNTY—Crawford et al's Stewart 1, C E L SE SE SE 17-19-12, rig; Greishabert 1, SWc SE SE SW 8-17-17, rig; St. Mary 1, SWc 11-1-12, sd 2290 ft.

RICE COUNTY—Stamey et al's Barnes 1, SEc NE 21-20-6w, fsh 3087 ft. Jasper & Beschka's Walker 1, SWc NE 10-18-6w, sd 2200 ft.

RILEY COUNTY—Pawnee O. & G. Co.'s Marks 1, SEc NE NW 26-10-6, sd 2030 ft.

ROOKS COUNTY—Keyes Pet. Co.'s Sandon 1, NW SW SE 7-8-20w, spudded and sd. Benedum & Trees' Minx 1, SWc 25-10-19w, rig.

RUSSELL COUNTY — Pomeroy et al's Cooper 1, SEc 33-12-11w, ur 2600 ft. Alcorn Oil Co.'s Sellers 1, SEc 36-15-12w, dr 3725 ft.

SALINE COUNTY—Thrall et al's No. 1, SEc NE NW 15-15-4w, sd 1010 ft.

SEDGWICK COUNTY—J. H. Liggett's Funk 1, NEc NW 11-26-1w, lcn.

SEWARD COUNTY—C. T. Dev. Co.'s Woods 1, NWc NE 34-34-34, sd 700 ft. Seward O. & G. Co.'s Selsey 1, NEc NW 2-33-33, sd 2427 ft.

SUMNER COUNTY—Foster et al's French 1, NWc 13-31-2, lcn. Phillips Pet. Co.'s Martin 1, SWc NW 8-34-1, rig.

TREGO COUNTY—Keyes Pet. Co.'s Walsh 1, NWc SE 5-11-25w, sd 1450 ft; Walsh 2, SWc NE SW 5-11-25w, sd 1550 ft; Davis 1, NEc SW 16-11-24w, dr 3030 ft.

WABAUNSEE COUNTY—Williams et al's No. 1, NEc SW 9-5-5, sd 3600 ft.

WILSON COUNTY—Rhodes & Fremch's Brown 1, NWc SW NW 2-27-14, dr 805 ft.

WOODSON COUNTY—Mathews et al's Jeffers 1, NWc SE 36-26-15, lcn.

Tampuche Has Well

Panuco, Ver., Feb. 28.—For the first time in nearly a year there has been a successful commercial completion in Tampuche, with the Cia. Petrolera El Sol, S. A., bringing in its Tamiscol No. 2, for 3000 barrels estimated initial production at 2274 feet. Although drilling has been carried on consistently in this property, all completions in 1924 were dry holes.

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Central West Texas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Brown County—		
Moore-Wilson et al Westerman 2..	10	1305
Reagan County—		
Big Lake Oil Co. University 17, (Sec. 1, blk. 2).....¶60		2435

DRILLING REPORT

BROWN COUNTY—Canyon Oil & Gas Co. et al's McDonough 7-A, dr 635 ft; Ellsberry 3, rig. Gillman et al's Moore 2, made 55 bbls oil in 12 hours, sand 1236-42 ft. Honea et al's DeBusk 2, dr 2345 ft. Lowe-Delaney & Carter's Williams 1, machine. McMurray et al's Newton 3, dr 365 ft. Moore et al's Chambers 1, dr 865 ft. Moore & Wilson et al's Gafford 1, rig; Gafford 2, lcn. Mahlstedt-Mook Oil Co.'s Gaines 3, dr 525 ft; Gaines 5, rig; Gaines 6, lcn. Mendenhall et al's Newton 3, rig; Newton 4, lcn. Omaha Southern Oil Co.'s G. B. Gaines 2, sd 1840 ft. D. B. Thomas et al's Bohara 1, sd 2410 ft. Ward Oil Co.'s Windham 1, sd 1190 ft. Williams et al's H. A. Newton 1, sd 1065 ft.

CALLAHAN COUNTY — Byron-Union Oil Co.'s Hennesey 1, dd, fsh bailer 4450 ft. Chas. Dutton et al's Cathey 7, rig; Harwell 1, sd 800 ft. Donley Bros. et al's Isenhower 1, spudding. Junior Oil Co.'s A. L. Huntington 1, sd 2280 ft. A. G. McMath et al's Isenhower 1, spudded and sd. L. D. Prewitt et al's Geo. T. Crane 1, water trouble 1879 ft; Crane 2, sd 1105 ft; W. W. Crane 1, dr 1845 ft; Jones 1, spudded and sd; Linecum 1, dr 1055 ft. Seaboard Oil & Gas Co.'s Isenhower 3-A, rig. Urban et al's Alvord 1, dr 1110 ft.

COLEMAN COUNTY—D. R. Bailey et al's Kelley Grady 1, (5 miles south of Santa Anna) dr 785 ft.

PALO PINTO COUNTY—Ed. S. Britton & E. B. Ritchie's Strawn Coal Co. Fee 3, sd 3125 ft. Cameron & Anderson's W. O. Pollard 2, sd 1145 ft. J. D. Cranford et al's L. Smith 1, sd 750 ft. Hughes et al's Belding 1, dr 3805 ft; Weldon 2, showing gas 2710-30 ft, dr 3105 ft. Hart et al's Cardwell 1, sd 605 ft; Cardwell 2, machine. Hart Oil Corp.'s Hart 10, ur 1275 ft; Orme 1, rig. Little Caddo Oil Synd.'s Massie 2, dr 1065 ft. McKinney et al's Marsden 1, sd 465 ft. S. W. Manning et al's Hitson 1, dr 3810 ft. Nelson Oil Co.'s Owens 1, spudded and sd. Owens et al's Bond 1, dr 2610 ft. Phillips et al's Stringer 1, sr casing 1155 ft. Pender Prod. Co.'s Rasmussen 1, rig. Phillips & Graham's J. A. Caudill 1, sd 3800 ft. Scott & McCluer's Wheeler 3, dr 2010 ft. Wickens et al's Williams 1, showing gas dr 3070 ft.

BREWSTER COUNTY—Green Valley Oil Corp.'s W. A. Wilson 3, dr 760 ft.

COKE COUNTY—West Virginia Oil Marketing Assn.'s J. R. Mims 1, dr 1215 ft.

CONCHO COUNTY — Dome Production Co.'s Mrs. C. M. Hartgrove 2, dr 825 ft.

CROCKETT COUNTY—J. S. Cosden et al's University 1, (Sec. 34, blk. 12) dr 1715 ft. Peer Oil Corp.'s University 1, (Sec. 14, blk. 15) lcn. Kanawah-Angelo Oil Co.'s University 1, (Sec. 9, blk. 52) dr 995 ft. Crockett Drilling Synd.'s Robt. Massey 1, sd indefinitely 1755 ft. World Co.'s L. P. Powell 1, sd 2360 ft. Red Ball Oil Co.'s University 1, rig.

GARZA COUNTY—B. V. Blackwell et al's J. M. Boren 1, sd with oil in hole 2443 ft; Connell 1, (Sec. 7, blk. 6, H&GN sur) machine. McDaniel-Mitchell & Jewell's Connell 1, sd 2615 ft. S. A. Sloan Oil Co.'s Connell 1, lcn. Armeda Oil Co.'s Connell 1, rigged up.

IRION COUNTY—Chas. Denny et al's Spring Creek 1, rig. Virginia-Texas Pet. Co.'s W. M. Noelke 1, (Tom Green Co. School Lands) 8¼ casing on bottom 2140 ft. Gladys-Belle Oil Co.'s J. D. Sugg 1, (Sec. 27, blk. 2) dr 1615 ft.

KENT COUNTY—C. F. Greenwood et al's J. E. Kuteman 1, lcn.

LOVING COUNTY—P-V Petroleum Co.'s N. E. Chapman 1-A, dr 520 ft.

MITCHELL COUNTY—Eastland Oil Co.'s W. D. Keynard 2, dr 2800 ft; Keynard 3,

rigging up. Eastland & Atlantic Oil Prod. Co.'s Joe Clark 1, spudding. The California Co.'s Paul Elder 1, co 2810 ft; Paul Elder 1-A, lcn; W. H. Abrams 8, dr 800 ft; Morrison 12, dr 2800 ft. Eddleman et al's A. C. Gist 1, sd 3350 ft. Sloan Oil Co.'s Sam Smart 6, rigging up; H. C. Miller 3, co after shot 3035 ft. Morrison-Thompson et al's C. M. Adams 1, dk. J. T. Harris et al's W. C. Brown 1, sd 370 ft; Brown 2, sd 300 ft.

PECOS COUNTY—Gulf Production Co.'s White & Baker 1, (Sec. 85, blk 194, GC&SF sur) rig. Plymouth Oil Co.'s Perry Ranch 1, hole full sulphur water 2250 ft. Arkansas Fuel Oil Co.'s Blackstone & Slaughter 1, dr 1510 ft. Transcontinental Oil Co.'s Sherbino 1, missed pay sand, sd 1701 ft. Adams Oil Co.'s Devlin 1, (17 miles NW Fort Stockton) dr 410 ft.

REAGAN COUNTY—Big Lake Oil Co.'s University 14, Sec. 1, blk. 2, sd for storage 2881 ft; University 16, C SE Sec. 1, blk. 2, dr 2555 ft; University 18, C SW Sec. 25, blk. 9, running 8¼ casing account crooked hole 2270 ft; University 19, C SE SE Sec. 12, blk. 2, dr 490 ft; University 20, C SW SW Sec. 25, blk. 9, dr 490 ft; University 21, C NE NE, Sec. 1, blk 2, dr 245 ft; University 22, C SE NE Sec 1, blk. 2, dr 500 ft; University 23, C NE SE Sec. 1, blk 2, dr 370 ft; University 24, C SE SE Sec. 1, blk. 2, dr 475 ft; University 25, C SE SW Sec. 25, blk 9, rigging up. B. H. Cogdell et al's University 1, Sec. 23, blk. 8, fsh tools 365 ft. The California Co.'s University 1, Sec. 13, blk. 8, sr 3480 ft. H. S. Grayson et al's University 1, Sec. 28, blk 8, sd 3165 ft. Gulf Production Co.'s University 1, located 330 ft each way from NW cor Sec. 1, blk. 1, rigging up. P. H. Hoffman et al's University 1, Sec. 23, blk. 11, sd for water 1205 ft. George McCamey-J. P. Johnson et al's University 1, Sec. 13, blk. 9, rigging up. H. B. McGuire et al's C. W. Merchant 1, Sec. 12, L. S. & V. Ry. sur. blk. "A", rigging up. Pilot Oil Corp.'s University 1, Sec. 11, blk. 9, dr 655 ft. Simms Oil Co.'s Sawyer 1, Sec. 12, S. A. Glass sur, sulphur water 3040 ft, dr 3090 ft. J. T. Stover et al's University 1, Sec. 34, blk. 11, sd 200 ft. Texon Oil & Land Co.'s University 2, Group 2, C SW Sec. 26, blk. 9, fsh tools 210 ft; University 4, C NW Sec. 1, blk. 8, co and swabbing 180 bbls after shot 3146 ft; University 5, C NE Sec. 36, blk. 9, fsh tools 100 ft; University 6, C NW NW Sec. 36, blk. 9, 12½-inch casing at 460 ft; University 7, C SW NW Sec. 36, blk 9, dr 1860 ft; University 8, C NW SW Sec. 36, blk. 9, dr 650 ft; University 9, C SW SW Sec. 36, blk. 9, dr 300 ft; University 10, C NE NW Sec. 36, blk 9, rigging up; University 11, rigging up; University 12, rigging up. University Oil Co.'s University 1, Sec. 17, blk. 10, top lime 2735 ft, dr 2765 ft. C. J. Wrightsman et al's Ingham 1, Sec. 39, blk. "C", L. S. & V. Ry. sur, co after setting 8¼-inch casing 2030 ft. W. H. Dunning et al's J. D. Sugg 1, C Sec. 185, T&P Ry. sur, blk. 2, lcn.

SCURRY COUNTY—Northwest Co.'s J. J. Moore 2, rigging up to drill with air.

STERLING COUNTY—Chas. Pettit & Albert Adkisson's C. C. Reynolds 1, rig. Ford & Cogdell et al's W. L. Foster 1, sd for repairs 1705 ft. Chicago-Texas Oil & Gas Co.'s D. C. Durham 1, setting 10-inch casing 1700 ft; Durham 2, sd 1406 ft. Co-Operative Lease & Dev. Co.'s Douthitt 1, sd 2000 ft. Fidelity Oil Corp.'s G. R. Hull 1, sd 1855 ft.

UPTON COUNTY—Big Mesa Oil Co.'s University 1, Sec. 17, blk. 3, spudded and sd. Bell-Regan et al's University 1, Sec. 2, blk. 4, sd 310 ft. Suggs & Chancellor's University 1, Sec. 8, blk. 4, spudded and sd. W. P. Morris et al's H. M. Halff 1, dr 250 ft.

Coastal Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Brazoria County—		
Z. Gayle et al's Gayle & Dunsmoor 1	*	1500
Hardin County—		
Kirby Pet. Co. & Munson, Anderson et al's Hodges 3	90	3006

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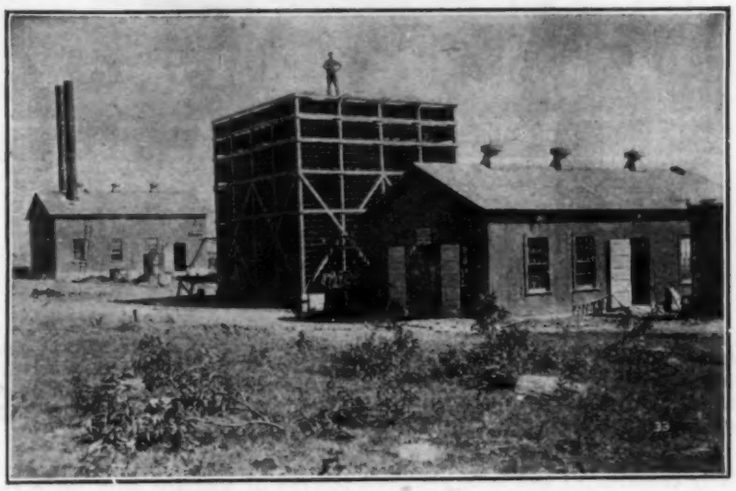

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The Hope Engineering and Construction force never has to wait to organize activities and assemble equipment.

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Engineering counsel, design, construction and contracting—in pipe lines for oil and gas, oil pumping stations, gas compressing and boosting plants, gasoline recovery systems, city and inter-city gas mains.

Unit Responsibility

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HOPE Engineering & Supply COMPANY

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A combined gas engine and single eccentric pumping power, with a 10½-H.P. Gas engine, positive governor, gravity feed lubrication and Wico ignition for gas or gasoline equipment. In refinement of construction and efficiency and simplicity of operation this is the best power of its kind on the market. Will satisfactorily operate four two-thousand-foot wells. Price, $650.00.

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STEELEX AND BRONZEX Balls and Seats

The Charles N. Hough Manufacturing Co.

FRANKLIN, PENNSYLVANIA

Products that cut down your underground overhead.

Company, Well and Location	Initial Production Bbls.	Depth
Jefferson County—		
Texas Co.'s Neches Canal Co. 1....	*	1502

DRILLING REPORT

BRAZORIA COUNTY—D. F. Bryan Production Co. & Hamm et al's Bryan 1, at Freeport, J. G. McNeel sur, dr 3260 ft. Z. Gayle et al's Gayle & Dunsmoor 1, 6 miles S Angleton, W. J. Russell sur, 500 ft to W line, abn at 1500 ft; Gayle & Dunsmoor 2, ¾ mile E No. 1, spudded in.

CHAMBERS COUNTY—Sam J. Hindman's Bullock-Collier 1, Collier 200-acre lease, Griffith league, 2891 ft to W and 60 ft to S line, dr 1900 ft.

FORT BEND COUNTY—Gulf Prod. Co.'s Moore 3, dr 1510 ft. Neilan Oil Co.'s B. Frederick 1, 4½ miles W Rosenberg, Sec. 19, S. George sur, NW cor, reported dr below 1320 ft. Pathfinder Oil Co.'s Davis & Co. 2, Sec. 101, George Waters sur, dr 2200 ft. James W. Rich et al's Moore-Hager 2, at Big Creek, 300 ft NE No. 1, SE side of dome, dk. Rycade Oil Corp.'s Meier 1, 1200 ft S and 800 ft W of Nash 2, 650 ft S and 450 ft W of NE cor Meier tract, dr in salt at 1288 ft; Nash 1, 2600 ft E and 200 ft S of NW cor Nash's 200-acre lease, td 2943 ft, reaming at 2859 ft; Nash 2, Alsberry sur, 400 ft E and 600 ft S of NW cor Nash's 486 acre tract, 28 degrees NW and 4650 ft NW No. 1, dr at 3822 ft.

GALVESTON COUNTY—Gulf Prod. Co.'s George E. Smith 2, at High Island, dr 3150 ft.

HARDIN COUNTY—Kirby Pet. Co., Munson & Anderson et al's Hodges 3, near Batson, Hodges 202-acre lease, producing 90 bbls, attempting to put well on pump.

HARRIS COUNTY — Dome Dev. & Pet. Co.'s Schneider 1, Schneider farm, John D. Taylor sur, blk 41, temp abn. Texas Co.'s Warren 1, 3 miles S Hockley, 400 ft NE Staiti No. 17, and 10 degrees to E of line drawn through Nos. 13, 15 and 17, dr 1993 ft; Warren 2, 1000 ft N and 45 degrees W of No. 14, preparing to drill at 594 ft.

JACKSON COUNTY — Vanderbilt Petroleum Corp.'s Seliner 1, 4 miles N Vanderbilt, C. W. Hall subdivision of Harwood-Burns ranch, sd at 2720 ft.

JEFFERSON COUNTY—Houston Oil Co.'s Gulf-Pipkin 2, Pipkin & Davis sur, encountered caprock at 802 ft, well will be abn; Staiti 5, S. Eaton sur, 250 ft S Statit 4, encountered caprock at 1502 ft, will be abn. Paggi Bros.' Wilson Hardware Co. 1, Wilson tract, ¾ miles SW Miller 1, reported at 700 ft. Texas Co.'s Neches Canal Co. 1, 5 miles S Nome, near Sour Lake, abn in gumbo at 1502 ft; Neches Canal Co. 2, 2650 ft NW and 150 ft NE at right angles from SW cor of E½ of Wm. McFarland league, lcn.

MATAGORDA COUNTY—Marland Oil Co. of Texas' Murphy 1, Jeremiah Dwyer sur, setting cas at 4650 ft. Rycade Oil Corp.'s Gray 2, 600 ft N of S line and 1400 ft W of E line blk 2, dr 3108 ft. Sheppard Mound Oil Co.'s Hawkins 2, offset to Marland's Murphy 1, 3000 ft E Commonwealth Oil Co.'s Hawkins 1, 1000 ft SE No. 3, dr 1000 ft.

WALKER COUNTY—Big Ridge Oil & Gas Co.'s No. 1, at Weisers Bluff, 14 miles N of Huntsville and 12 miles W Riverside, Eastham sur, dr below 880 ft.

WHARTON COUNTY — Gulf Prod. Co.'s Hackstedt 1, S. F. Austin sur, 769 ft to W and 1035 ft to S line, dr 610 ft; Felder 3, 20 ft to W and 1735 ft to N line of blk 3, S. Ingram sur, dr 3540 ft.

San Antonio District Wildcats

COMPLETIONS

Jim Hogg County—

Company, Well and Location	Initial Production Bbls.	Depth
Texo Oil Co.'s No. 2.....	200	....
Plateau-Wheat's No. 6	800	1998
Witherspoon Oil Co.'s No. 2	600	....

DRILLING REPORT

ATASCOSA COUNTY — DeLange-Eiser Co.'s Tom 2, dr 4280 ft in hard shale. Texa-

cosa Oil & Gas Co.'s Peeler 1, underreaming 1685 ft. Tripps Drilling Co.'s McAda 1, setting casing 1600 ft. Rutledge et al's Kufman 1, dr 1800 ft. Green et al's Koak 1, dr 1800 ft. Roxana Oil Co.'s McCowan 1, lcn.

BEXAR COUNTY—Aviator's No. 1 Swearingen, dk. J. M. Davis et al's Koch 1, cored at 1450 ft. White & Hampton's Swearington 1, sd.

CALDWELL COUNTY—Alonzo Oil Co.'s Garcia 6, dr.

DUVAL COUNTY — Co-Operative Drilling Co.'s Dinn 1, sd 2070 ft. Mesquite Oil Co.'s No. 1, setting liner. Hill-Pierce Corp.'s No. 1 Martinez, dr.

GUADALUPE COUNTY — J. K. Hughes Dev. Co.'s Allen 20, no report. Allen Burman's Wade Battle 1, dr below 2000 ft. Magnolia Oil Co.'s Nos. 13 and 14, dr. York Creek Oil Co.'s Fulcher 1, dr 1885 ft. Sykes et al's Springs 1, dr 2120 ft. Ross & Green's Pryor 1, dr. Rutledge's Pryor 1, dr. Stebbins Oil & Gasoline Co.'s Lenz 1, dk. W. B. Pittman's Hy Thomas 1, preparing to spud in. Flick et al's Weinert 1, set casing; 2, rigging up. Walhunda Pet. Co.'s Smith 1, sd 2075 ft. Mid-Kansas Oil & Gas Co.'s Edna Krueger 1, sd. Roxana's Springs 1, dr. McClannahan's Herman Lenz 1, dr. J. M. Davis et al's Koch 1, coring.

JIM HOGG COUNTY — Buchanan-Plateau Oil Co.'s No. 3, lcn. Rycade-Rydal Oil Co.'s No. 1, W. P. Allen, sur 21, dk. Simms Oil Co.'s No. 1 Wood, Sur. 84, dr. Plateau Oil & Gas Co.'s No. 2, bailing at 1998 ft; 3, set casing; 4, dr; 5, dk; 6 swabbing 500 bbls. Buffam et al's No. 1, blk 16, sur. 255, reported producing 200 bbls.; 3, dr 500 ft. Russell-Hoffman's No. 1 David Vela ranch, dk; 1 Givens, rigging up. Big Bend Oil Co.'s Nos. 5 Martinez, cemented 6⅝ inch casing at 1900 ft; 6, dr 1050 ft; 7, 8 and 9, rigging up; 10, testing. Cole Pet. Co.'s Nos. 6, testing; 7, lcn. San-Tex Oil Co.'s No. 1, Sur. 262, dk. Mirando Oil Co.'s No. 11, set casing at 2048 ft. Magnolia Pet. Co.'s No. 4 Thompson, dr; 5, dr 1745 ft. Weber Oil Co.'s No. 4 Holbein, sd 3010 ft. Kitselman & St. Albans Interests' Nos. 2, rigging up; 4, dr 1935 ft; 5 and 6, dks; 7, lcn. Plateau-Wheat's Nos. 2, dr; 6, producing 800 bbls; 4 and 5, lcns. Plateau-Texas Pacific's No. 5, dr 1910 ft; 2, Holbein, preparing to pump; 5, swabbing 500 bbls; 6, spudding in. O. W. Killam's No. 3 Martinez, no report; 7, dk. Witherspoon Oil Co.'s Nos. 4, down 1982 ft; 2, flowing 600 bbls; 5, swabbing 400 bbls.

LIVE OAK COUNTY—Grubstake Investment Assn.'s No. 3 Nichols, no report. Texas Co.'s No. 2 Reagan, dr. Southern Natural Gas Co.'s Nos. 9, dr; 10, lcn. Coquet et al's No. 1 Hicks, dr.

ZAPATA COUNTY—H. J. McMullen's Nos. 1, 2 and 3 Serapio Vela, lcns. R. K. Bateman et al's No. 1, Sur. 617, dr below 1960 ft. Killam Interests' No. 1, Sur. 307, set casing at 1664 ft. Hill et al's Haynes 1, dr. Pamuco Prod. Co.'s No. 1 Vela, dr below 400 ft.

East Central Texas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Kaufman County—		
Marland Oil Co. Kenshale-Arnold 1, (B. S. Newman sur)	*	3580
Wood County—		
Golden Oil Co. J. D. Adrian 1, (Hallmark sur.)	*	4168

DRILLING REPORT

BOWIE COUNTY—Daulby Springs Oil Co.'s Perky 1, (Bowie County School Lands sur) sd 2250 ft. George B. McCullough & Roell's W. R. Williams 1, (L. M. Rice sur) spudded and sd. Williams et al's Daulby 1, sd 2050 ft. Delaney Oil & Gas Co.'s Rochelle 1, (Collin McKinney sur) sd 2405 ft.

FANNIN COUNTY—Lester Pet. Co.'s S. D. Graves 1, (Wm. Hutchins sur) sd for fuel 2730 ft.

FRANKLIN COUNTY—Arkansas Fuel Oil Co.'s J. A. Dickson 1, (Thomas Willison sur)

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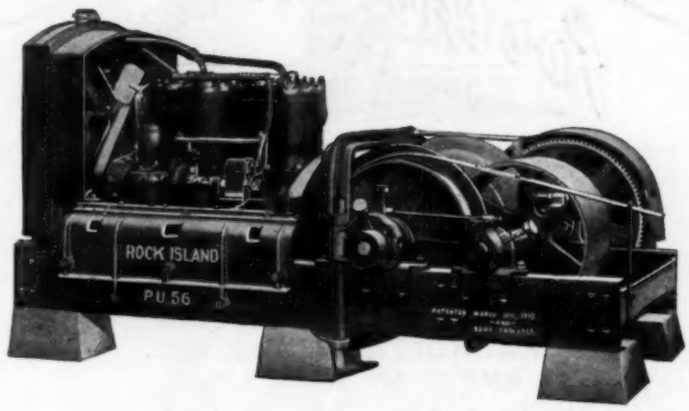

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MALONEY

chalk at 1453-1599 ft, coring top Woodbine 2956 ft. Marshall & DeGenther's Swanner 1, (Hanks sur) sd 1900 ft.

HENDERSON COUNTY—R. R. Penn et al's G. E. Murphy 1, (Jas. M. Gardner sur) lcn. Fred E. Haynes et al's E. G. Bounds 2, (Henry Jeffreys sur) sd 2000 ft.

HOPKINS COUNTY—G. T. Rheubotham et al (was Bar-Tex Drilling Co.'s) Mary L. McClure 1, (D. Waggoner sur) near Pine Forest, rigging up. W. K. Kellogg & Roxana Pet. Corp.'s Dollie Cork 1, (R. E. Matthews sur) lcn. Stough & Potts et al's J. R. Fitzgerald 1, (John Binnion sur) sd 1610 ft. C. A. Kelsey et al's Addie Brooks 1, (D. Dowdle sur) sd 1825 ft.

HUNT COUNTY—Marland Oil Co. et al's P. Bauknight-Fee 1, (J. Hamilton sur) top Nacatoch 1408 ft, Austin chalk at 1880-2223 ft, dr shale 2500 ft. George Lyles et al's D. B. Meadows 1, (James Levins sur) top Nacatoch 1247 ft, Austin chalk at 2129 ft, top Woodbine sand 3180 ft, dr red shale 3440 ft. Gulf Production Co.'s J. C. George 1, (E. Tidwell sur) rigging up. Sam Tallal & C. A. Kelsey et al's J. W. Barnett 1, (Alexander Smith sur) sd for fuel 750 ft. Rycade Oil Corp.'s Dr. Lyttle 1, (James McAdams sur) lcn in SE part of 108-acre lease and mile west of Quinlan.

KAUFMAN COUNTY—F. E. Skinner et al's Becker 1, (Thos. H. Eaton sur) lcn. Atlantic Oil Prod. Co. & Jackson's R. S. Watkins 1, (C. Pearson sur) rig burned, td 2742 ft. J. A. Germany et al's W. S. Kirby 1, (S. Edens sur) sd indefinitely 3255 ft.

NAVARRO COUNTY—R. R. Penn-W. C. Windsor et al's W. P. Absher 1, (T. J. Jordan sur) Bazette District, elevation 399 ft; Austin chalk 2668-2705 ft, setting liner 3086 to test; Jennie White 1, (M. Boren sur) NE Currie district, Austin chalk 2630-60 ft, top Woodbine sand 3129 ft, testing sand 3132 ft. Humphreys-Boyd Oil Co.'s A. T. Walthal 1, (John H. Millican sur) Bazette district, elevation 384 ft, Austin chalk 2127-2644 ft, cemented casing 3010 ft. Elliott & Nicolle's D. J. Westbrook 1, (Henry H. Horn sur) Kerens district, Austin chalk 2477-2615 ft, dr shale 2750 ft; J. M. Barry 1, (Henry H. Horn sur) dk. Strothman et al's E. D. Bounds 1, (M. Boren sur) NE Currie district, dr 2465 ft. Sun Oil Co. et al's Earnest Swink 1-A, (W. M. Hudson sur) NE Currie district, rigging up.

RAINS COUNTY—George H. Anderson et al's A. A. Humphreys 1, (J. H. Garrett sur) dk. Cree & Coalter (was Ferguson & Short Bros.) W. D. Peeples 1, (F. A. Tibbles sur) sd 1300 ft.

TITUS COUNTY — Magnolia Pet. Co.'s George Antone 1, (M. V. Delgado sur) flowing warm salt water 2460 ft.

VAN ZANDT COUNTY—Free State Oil Co. (was Porter & Holmes) J. T. Dunbar 1, (Van Sickle sur) sd indefinitely 3615 ft.

North Texas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Wilbarger County—		
South Vernon Oil Co. Stephens 12..	325	1300
Wells-Guiberson Waggoner 3.....	700	1300

DRILLING REPORT

BAYLOR COUNTY—C. Andrade 3rd's B. F. Cockrell 1, dr 1300 ft. Bussell et al's Fee 1, lcn. Dallas Oil Co.'s Shawver Bros. 1, sd 2000 ft. Duke & McMee's J. Dipprey 1, dr 300 ft. Dyer et al's L. I. Cox 1, dk. Jones et al's Bassett 1, lcn; J. W. Stevens 1, lcn. Lehman et al's Shawver Bros. 1, sd 1200 ft. J. R. McCalden et al's Martin Bros. 1, dr 1000 ft. Maer & Staniforth's K. Leathers 1, dr 150 ft. D. H. Moore et al's Fancer & Sons 2, sd 600 ft. Richardson et al's W. B. Mills 1, fsh 550 ft. Richardson Bros. et al's Wallace Estate 1, dr 1480 ft.

CLAY COUNTY—Ashcraft et al's W. H. Chilson 1, dk. J. T. Cumley's J. D. Stine 2, dr 1780 ft; Stine 3, dr 200 ft. L. R. Dixon et al's R. H. Godfrey 2, spudded. E. C. D'Yarmitt's Scott 2, sd 600 ft. Knox Finley Dev. Co.'s Scott 4, dr 1010 ft. Lone Star Gas

Co.'s B. Landrum 1, dk; The Texas Co. Fee 1, dk. Mills Bennett's E. L. Holloway 1, dr 620 ft. Piedmont Oil Co.'s Dean 1, sd 1210 ft. Shappell Oil Co.'s E. M. Goetze 1, dr 250 ft. Shelton Oil Co.'s H. Boddy 1, sd 1370 ft. Somers & Nantz's Mary C. Parker 1, sd 1000 ft. Southern Exploration Co.'s Byers Bros. 1, dr 400 ft.

DENTON COUNTY—Arbuckle Asphalt & Pet. Co.'s K. Fonteberry 1, sd 700 ft.

DICKENS COUNTY—Garrett & Hall's M. Michael 1, dr 300 ft.

GRAYSON COUNTY—W. R. Shankle et al's J. Marshall 1, second hole, sd 1100 ft.

KNOX COUNTY—Brazos Bend Oil Co.'s J. E. Clark 1, sd 2020 ft. Evans et al's Ella Lawson 1, sd 765 ft.

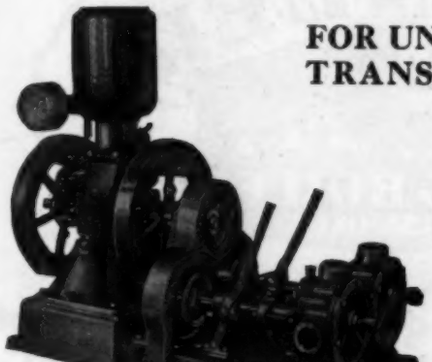
MONTAGUE COUNTY—Blair et al's C. L. Rolls 1, lcn. Boyd Oil Co.'s W. W. Jones 1, dr 200 ft; N. J. Howard 1, dk. Daniels & Rutis' Mrs. Salmon 1, dr 150 ft; S. E. Howard 1, dr 100 ft. Gulf Production Co.'s M. E. Benton 2, dr 1375 ft. P. F. Lesh's Mrs. Salmon 1, sd for pipe line 941 ft. Owenwood Oil Corp.'s Mrs. Salmon 1, sd 1000 ft. Petroleum Producers Co.'s C. H. Howard 1, dr 2200 ft. The Texas Co.'s I. A. Gist A-3, dr 1560 ft; Mrs. Salmon 1, ur 1220 ft. Texhoma Oil & Ref. Co.'s N. J. Howard 2, set cas on sand 1000 ft; Howard 3, lcn; J. W. Maddox 1, dr 1700 ft.

STONEWALL COUNTY — Elder Nance's Ward Estate 1, sd 1550 ft.

THROCKMORTON COUNTY — Cragin et J. R. Burkhalter 1, sd 50 ft. Davis Hart Oil Co.'s M. R. Rogers 1, lcn. Hale-Tex Oil Co.'s Mrs. J. L. Stubblefield 1, dr 1100 ft. Hamilton et al's J. T. Odell 1, sd 3050 ft. C. F. Kelsey's W. D. Housley 1, sd 50 ft. King et al's A. P. Broyles 1, sd 900 ft. B. Larkin et al's Mrs. Richards 1, sd 790 ft; Richards 2, sand 1265-70 ft, approximately 15 million ft gas. McGee et al's J. T. Davis 1, sd 1400 ft; J. J. Keeter 1, sd 200 ft; Lila D. Marlin 1, dr 1250 ft. McNeil et al's Travis County School Land 1, rigged up. Plains Prod. Co.'s R. E. Erwin 1, dr 350 ft. Schimmell et al's H. W. Kelley 1, dr 300 ft. Skinner et al's J. W. Newton 1, sd 50 ft. The Texas Co.'s A. L. Smythe 1, set cas 2090 ft.

WILBARGER COUNTY—Allday et al's W. S. Lundy 1, dk. American Ref. Co.'s W. T. Waggoner 1, dk. Atlantic Pet. Co.'s Parker 1, dr 1600 ft. Barker & Hamilton's A. P. Morris 1, sd 305 ft. Barkley & Meadows' W. H. Stephens 1, plugging back, td 2285 ft. Bridwell & Heydrick's S. A. Dill 5, dr 620 ft; J. W. McCrary 1, sd 150 ft; W. H. Stephens 6, swaging cas, flowing, td 2290 ft; Stephens 7, dr 660 ft; W. T. Waggoner 1, dk. Bridwell, Heydrick & T. P. Coal Co.'s W. T. Waggoner 1, second hole, dr 1270 ft. W. G. Burton's S. A. Castlebury 1, dr 1160 ft; C. Zipperle 1, dk. Burton & Ruff's W. T. Waggoner 1, dr 850 ft. Electra Gulf Oil Co.'s M. Ditto 1, sd 2050 ft. W. W. Graham's M. J. George 1, ur 600 ft. Gulf Production Co.'s C. Zipperle 1, dr 1300 ft. Waggoner R-1, bailing, os 1290-93, some gas; Waggoner S-1, dr 1500 ft. Hamilton, Stedham & Thrasher's Chas. Neal 1, dr 820 ft. R. N. Hamilton et al's B. L. Haynes 1, dr 1940 ft. Hoffer Oil Corp.'s W. T. Waggoner 1, dr 1500 ft. Humble Oil & Ref. Co.'s R. L. Castlebury 3, testing sand 1750 ft; Castlebury 6, dr 750 ft; Castlebury 7, dr 800 ft; Castlebury 8, dr 910 ft; Castlebury 9, dr 840 ft; Castlebury 10, dr 1000 ft; W. T. Waggoner 1, dr 1770 ft. T. A. Key et al's W. T. Waggoner 1, dr 450 ft. C. F. Kolp's Waggoner 3, dr 200 ft; Waggoner 4, rigged up; Waggoner 5, dk. J. B. Levy et al's W. T. Waggoner 1, testing sand 1425-30 ft; D. Wheeler 1, sd 1420 ft. Lippard Oil Co.'s F. Fluhman 1, dr 1300 ft. Little Oil Co.'s J. T. Youngblood 1, dr 2050 ft. McCamey et al's G. W. Richardson 1, sd 2060 ft; Richardson 3, dr 1000 ft; Richardson 4, dr 400 ft; Stephens 4, dr 1300 ft; Stephens 5, dr 400 ft; Stephens 6, rigging up; Stephens 7 and 8, dks; Stephens 9 and 10, rigging up; Stephens 11 and 12 dks. Ed Mulligan et al's W. T. Waggoner 1, sd 1200 ft. Mutual Oil Co.'s W. T. Waggoner, flowing at rate of 1000 bbls per day, 2320 ft. Oxford Oil Co.'s Waggoner 2, dk. W. Priddy et al's R. L. Castlebury 1, dr 1810 ft; Castlebury 2, sd 1350 ft. Ray & Massey's Bond et al 6, dr 1950 ft; Bond et al 7, dr 820 ft; Bond

Viking Twin Oil Pumping Units



Figure—15

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et al 8, dk. W. L. Ruff's W. T. Waggoner 1, dr 1680 ft. W. J. Sheldon et al's W. J. Sheldon 1, dr 2100 ft. J. F. Shipley's B. W. Murphy 1, co 600 ft. F. S. Skinner et al's F. Streit 1, dr 2450 ft. W. A. Smith et al's R. L. Castlebury 1, rigging up Star. South Vernon Oil Co.'s W. H. Stephens 6, sd 1965 ft; Stephens 7, sd 2030 ft; Stephens 8, sd 2030 ft; Stephens 9, sd 1950 ft; Stephens 13, dk; Stephens 14, dr 250 ft. Staley & Wynne's W. H. Stephens 1, testing sand 1315-25 ft; Stephens 2, dr 1100 ft; W. T. Waggoner 1, testing sand 1960-77 ft. Texas Oklahoma Oil & Ref. Co.'s J. Bowers 1, sd 2360 ft. The Texas Co.'s R. L. Castlebury 1-B, ur 1570 ft; Josephene L. Owen 1, lcn. Texhoma-Holmes' Mrs. A. Thomas 1, dr 1200 ft. Texhoma-Allday's J. F. Bettes 1, dr 1300 ft. R. M. Waggoner & Winnipeg Oil Co.'s Bond et al 2, sd 1800 ft. Wells & Guiberson's Waggoner 4, dr 200 ft; Waggoner 5, rigging up. Winnipeg Oil Co.'s Bond et al 5, dr 1700 ft; Bond et al 6, dr 900 ft. G. C. Wood et al's A. Streit 1, dr 1400 ft. Yoder & Harrison's Mrs. J. T. Williams 1, dk.

Texas Panhandle Wildcats

COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Gray County—		
Frank Dillard's John Henry 1.....	*	3340

DRILLING REPORT

CARSON COUNTY — American Ref. Co.'s Burnett 3, dr 2870 ft; Burnett 4, lcn. J. Crosbie et al's Burnett 1, flowing about 700 bbls per day, 2885 ft; Burnett 2, lcn. Culbertson et al's V. B. Armstrong 1, dr 3500 ft. Gates Oil Co.'s Burnett 1, swabbing approx. 100 bbls daily, td 3020 ft. Gulf Production Co.'s Burnett 1-A, completing as gas well, td 3510 ft; Burnett 5, ur cas 3080 ft; Burnett 6, dr 2100 ft; Burnett 7, dr 1815 ft; Burnett 8, dk. Hicks & Schoonaker's S. B. Burnett 1, lcn. Marland Oil Co.'s Burnett 1, dr 2960 ft. Olson Bros. et al's Burnett 1, sd 2500 ft. Premier Oil Corp.'s Burnett 1, dr 2480 ft. W. W. Silk et al's Burnett 3, second hole, dr 3060 ft; Burnett 4, lcn. Skelly Oil Co.'s Burnett 2, sd 2950 ft. The Texas Co.'s Burnett 5, dr 2600 ft; Mary C. Burnett 2, cement cas 2810 ft.

COTTLE COUNTY—T. J. Woodley et al's A. Dulaney 1, sd 2700 ft.

GRAY COUNTY—A. R. Anderson's C. W. Bradford 1, sd 1660 ft. C. H. Clark et al's Coombs & Worley 1, fsh bit 2800 ft. Danciger Oil & Ref. Co.'s J. B. Bowers 1, dr 625 ft. W. H. Holmes' J. S. Morse 2, set cas 2780 ft. Wilcox Oil & Gas Co.'s Coombs & Worley 1, fsh 3000 ft; J. H. Wilson 1, sd 3615 ft.

HUTCHINSON COUNTY — Amarillo Oil Co.'s L. Bivens 2-B, sd 2650 ft. H. G. Barnum et al's Johnson 1, sd 2950 ft. Dixon Creek Oil Co.'s H. C. Smith 1, sd 2900 ft. Douglass Oil Co.'s J. A. Whittenberg 1, sd 3025 ft. J. H. Middleton's John Weatherly 1, cable tool rig. New Domain Oil Co.'s W. M. Christian 1, dr 2366 ft. Prairie Oil & Gas Co.'s Diana Shaw 1, dr 3215 ft. Twin Six Oil Co.'s W. L. Kingland 1, flowing approx. 100 bbls ,td 3000 ft. Western Enterprise Oil & Gas Co.'s Smith-Capers 1, sd 3050 ft. J. W. Wilson et al's Whittenberg 1, dr by tools, 2910 ft.

KING COUNTY—W. G. Trammell et al's Spikes 1, rigged up.

MOORE COUNTY — Amarillo Oil Co.'s Masterson 1, second hole, fsh cas 2000 ft.

POTTER COUNTY—Amarillo Oil Co.'s L. Bivens 3-A, dr 1960 ft; W. H. Bush 1, sr 3490 ft; J. C. Warrick 1, set cas 2850 ft.

ROBERTS COUNTY — Phil Engle et al's Mrs. Ledrick & Sons 1, sd 1730 ft.

WHEELER COUNTY — Mid-Continent Oil Synd.'s Ember 1, sd 500 ft. W. D. Sheddon et al's B. F. Westmoreland 1, sd 480 ft. J. Whittington's Williams & Laycock 2, flowing approx. 500 bbls from sandy lime 2175 ft to 2210 ft; Williams & Laycock 3, dr 200 ft; Williams & Laycock 4, rigging up.

Louisiana Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Bossier Parish—		
Osborne et al's McDade 1, 28-19-11	*	575
Calcasieu Parish—		
Vacuum Oil Co.'s Bordages 1, 9-10s-9w	*	4500
Claiborne Parish—		
Atlantic Oil Prod. Co.'s (Evans) Taylor 1, 5-19-5	*	2824
De Soto Parish—		
Wright et al's Sutherland 2, 19-12-14	*	2614
Red River Parish—		
Tarver et al's Conley 1, 2-14-10	*	2832

DRILLING REPORT

BIENVILLE PARISH—Roxana Pet. Co.'s Bryan 1, 30-17-6, set 6⅝-inch 2762 ft, tested sw 2780 ft.

BOSSIER PARISH—Coker et al's Rhodes 1, 31-21-11, set 12½-inch 130 ft. Dixie Oil Co.'s Johnson 1, 24-19-11, rig. Osborne et al's McDade 2, 28-19-11, rig. Thigpen & Herold's Bernstein 1, 11-20-13, testing 1976 ft, showing oil in small quantities. Wetherbee et al's Holland 1, 4-22-11, dry 2268 ft; to deepen.

CADDO PARISH—Dixie Oil Co.'s Noel B-1, 24-21-15, Pine Island deep test, dr 3512 ft. Flournoy et al's Simpson 1, 8-16-15, set 10-inch 200 ft. Fortuna Oil Co.'s Mitchell 1, 17-18-16, rig; Robertshaw 10, 23-21-15, fsh 3314 ft. Haynes Bros.' L. S. & P. Co. 1, 8-19-16, dry 2313 ft, to deepen. Proven Prod. Co.'s Agurs 1, 6-16-16, to set 4½-inch 2464 ft. Stith et al's Pitts 1, 11-23-16, sd 600 ft. The Texas Co.'s C. M. L. 43, 23-21-15, milling 3007 ft; Jeems Bayou 1, deep test, 15-20-16, set 6-inch 3501 ft.

CALDWELL PARISH—W. E. Neill's Cain Hill 1, 21-14-4e, dr 3200 ft.

CLAIBORNE PARISH — Black O. & G. Co.'s Aubrey 2, 20-21-8, dr 500 ft. Claiborne Lincoln Synd.'s Fields 3, 22-19-5, showing sw and dead oil, 2236 ft. Clark & Melat's Heard 1, 5-21-6, coring 1980 ft. Collins & Woodley's Oakes 1, 8-20-5, rig. El Dorado Chief Oil Co.'s McElwee 1, 13-22-7, sd 3040 ft. Triangle Drlg. Co.'s Cox 1, 7-19-5, dk.

DE SOTO PARISH—Daniels & Roscoe's Pollack 1, 36-11-14, dr 3010 ft. Ulrey et al's Deas 1, 23-11-12, len; Bishop-Robertson 1, 22-11-12, set 6-inch 2890 ft.

GRANT PARISH—Grant Parish Pet. Co.'s Ball 2, 1-7-1w, sd 150 ft; Ball 3, 14-7-1w, sd 400 ft.

JACKSON PARISH—Big Chief Oil Co.'s Rymes 1, 13-14-4w, dk timbers.

LA SALLE PARISH—Bur-Ban Oil Co.'s Urania 2, 21-11-2e, to set 6-inch 2090 ft. Columbia O. & G. Co.'s Urania Lumber 1, 22-10-2e, sd 200 ft. Gulf Ref. Co.'s Urania 1, 22-11-2e, dk; Urania A-1, 22-11-2e, dr 1750 ft. Urania Pet. Co.'s Urania Lumber 6, 18-10-2e, dr 60 ft.

NATCHITOCHES PARISH—R. O. Roy & Co.'s Durr 1, 27-10-10, fsh 800 ft.

OUACHITA PARISH — Dickson & Frue's Goodwin 1, 24-18-2e, dr 2540 ft. White et al's Jones 1, 6-16-5e, dr 1705 ft.

SABINE PARISH—Emlet et al's Bowman-Hicks Lumber 4, 8-7-12, dr 1125 ft; Bowman-Hicks Lumber 5, 9-7-12, dr 1400 ft. Fla-La Oil Co.'s Walker 1, 8-5-12, dk.

UNION PARISH—Jones & Walker's Feazel 1, 6-19-2e, to dr 6-inch plug 2518 ft. Simms Oil Co.'s James 1, 16-22-3w, dr 2440 ft.

WEBSTER COUNTY — Fortuna Oil Co.'s Nickerson 1, 23-23-10, set 6-inch 2582 ft, dr 2600 ft; Pine Woods Lumber 1, 27-24-10, set 6-inch 2563 ft. Kinnedy et al's Ambrose 1, 19-20-10, rig. Louisiana Oil Ref. Corp.'s Armor 1, 21-23-9, to dr 6-inch plug 2760 ft. McDowell et al's Hortman 1, 15-20-10, to set 6-inch 2510 ft Oil Fields Gas Co.'s Jordan-Young 2, 34-23-10, set 12½-inch 200 ft; Simpson 1, 3-22-10, set 12½-inch 208 ft. Palmer & Blount's Mason 1, 20-18-10, dr 550 ft. Simms Oil Co.'s Waller 1, 28-23-11, set 6⅝-inch 2668 ft. The Texas Co.'s Lewis 1, 25-23-10, dr 2010 ft.

WINN PARISH—Galloway & Arrendale's McCarty 1, 6-12-1w, dr 2110 ft. Hall et al's Eagle 1, 6-10-2w, to set 10-inch 140 ft.

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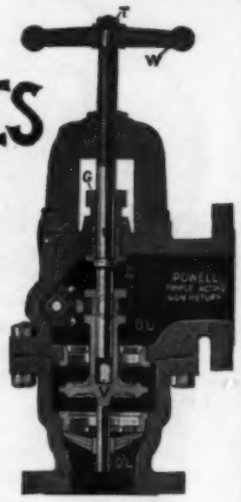

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Arkansas Wildcats

COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Ouachita County—		
Bray & Hawthorne's Goodwin 1, 12-15-17	*	2593

DRILLING REPORT

BRADLEY COUNTY—Rhodes et al's McQuistian 1, 36-12-9, sd 225 ft.

CLARK COUNTY — Southern Drlg. Co.'s Burrows 1, 35-10-20, sd 714 ft.

COLUMBIA COUNTY—Arkansas Fuel Oil Co.'s Hardy 1, 1-19-22, sd 2630 ft. Hargis et al's Souter 1, 24-17-22, sd 35 ft. Heath Trust's Williams 1, 1-19-21, sd 2175 ft. Johnson et al's Sailles 1, 18-17-22, sd 915 ft. Kemp et al's Emerson 1, 7-19-19, sd 2260 ft. Ky-Ark Pet. Co.'s Doss 1, 29-19-20, sd 650 ft. Magnolia Dev. Co.'s Lindsey 1, 30-18-19, to test 2257 ft. Magnolia Pet. Co.'s Watson 2, 36-15-20, dr 3245 ft. Meier et al's Gantt 1, 15-17-22, dk. Moore et al's Fullenwilder 1, 12-17-22, sd 2400 ft. Phillips et al's Davis 1, 14-18-21, r 2730 ft. Wingfield-Mitchell Synd.'s Bodcau Lumber 1, 4-20-21, dr 1050 ft.

DALLAS COUNTY—Durr et al's Riggs-Matlock 1, 33-8-15, sd 2400 ft.

DREW COUNTY—Graves et al's Karnes 1, 20-14-6, sd 2472 ft. King & Wilson's Trotter 1, 12-13-6, sd 1250 ft. Spooner et al's Meyer 1, 4-16-17, sd 50 ft.

GRANT COUNTY—Arnold & Hill's Meeks 1, 8-14-11, dk. Haley & Evans' Pike 1, 8-6-11, sd 50 ft.

HEMPSTEAD COUNTY—Grassy Lake Oil Assn.'s Gun Club 1, 27-12-27, dr 1310 ft. Hempstead Oil Co.'s Nicholls 1, 17-11-25, sd 1980 ft. Wooten et al's Walker 1, 22-11-24, sd 690 ft.

LA FAYETTE COUNTY — Ken-Saw Pet. Co.'s Red River Valley 2, 3-20-24, to set 6-inch 1878 ft.

LINCOLN COUNTY—Bennett et al's Jones 1, 33-10-6, dk. Cambrian et al's Fee 1, 3-9-8, sd 1850 ft.

LITTLE RIVER COUNTY—Gaines et al's Thomas 1, 16-13-29, sd 3787 ft. Grote et al's Allen 1, 2-13-29, dr 3406 ft. Johnson et al's Hawkins 1, 10-11-31, sd 1350 ft.

MILLER COUNTY—Doc Nye's (Norton) Thomas 1, 12-20-28, coring 1634 ft. J. K. Wadley's Thompson 1, 33-14-28, dr 1500 ft.

NEVADA COUNTY—Garrett et al's Snell 1, 10-12-23, dk. Humble O. & R. Co.'s Pitts 1, 8-15-22, dr 1300 ft. Smitherman & McDonald's Womack 3, 10-14-21, sd 2515 ft. Zingg et al's Groves 1, 22-10-23, sd 1605 ft.

OUACHITA COUNTY — British Allied Synd.'s Larkin 1, 6-13-18, sd 1410 ft. Bray & Hawthorne's Copenhagen 1, 13-14-17, testing 2530 ft. Reynolds & Thompson's Graves 1, 16-14-18, sd 2426 ft. Umstead et al's Jones 1, 26-14-17, dr 2175 ft.

UNION COUNTY—Berry et al's Union S. M. 1, 14-19-11, sd 1770 ft. Bradley & Carzort's Pate 1, 16-17-17, sd 850 ft. Coates et al's Springer 1, 36-17-16, dr 1500 ft. Falls Trust's Johnston 1, 1-18-17, dr 1450 ft. Jones et al's Murphy 1, 36-19-14, dr 300 ft. Liberty Oil Co.'s Davis 1, 31-16-14, dr 2245 ft. Mathews et al's Teele 1, 11-19-12, set 6-inch 2620 ft.

Oklahoma Wildcats

ALFALFA COUNTY—McGinnis & Ward's Watts 1, C NE SW 21-27-10w, sd 3504 ft. Armstrong, Henley & Piffles' Turnbull 1, C NW SE NW 25-24-11w, sd 3000 ft.

ATOKA COUNTY — McPhearson et al's Wild 1, SW₄ NW 7-2-9, sd 4323 ft. Henson et al's Dabney 1, C SE NW 17-4-11, dr 2500 ft.

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J. P. Torrance et al's Fee 1, SWc NE 1-2-9, sd 2235 ft, hfw. Wapanuka Dev. Co.'s Underwood 1, C W L SE SE 28-2-9, sd 1343 ft.

BLAINE COUNTY—Meyers et al's Chronister 1, SEc NW NW 7-18-15w, sd 965 ft. Okomo Oil Co.'s Ekleman 1, SWc 21-13-10w, sd 2610 ft.

BRYAN COUNTY — Alexander's Hampton 1, SEc NE 26-7-11, sd 1400 ft.

CANADIAN COUNTY — Thos. Revelle's Dawson 1, SEc 34-13-9w, dr 2955 ft. Carroll et al's Setter 1, SEc 2-13-8w, sd 100 ft. Wilcox et al's Sanders 1, C NE NE NE 29-11-7w, sd 40 ft.

CLEVELAND COUNTY — Garr Oil Co.'s Holland No. 1, NEc SE 31-10-4, sd 2620 ft.

CUSTER COUNTY—Hoover Oil Co.'s No. 1, NWc SE 34-13-14w, fsh 2510 ft.

GRANT COUNTY—Embry et al's Edwards 1, C SE SE NW 20-26-4, sd 1000 ft. Midwest & Gulf's Moon 1, NEc NW 8-27-8w, sd 2490 ft. Frank Traver et al's Fuss 1, SWc NW NW 3-27-4w, sd 1250 ft.

GREER COUNTY—Boss & Terrill's Van Victor 1, C SW SW 4-3-22w, dr 3100 ft.

HUGHES COUNTY — Mathers & Skelly's McClain 1, C SW SW 4-5-11, sd 3206 ft. Walton, Snyder & Marshall's Kiles 1, C E L NE NW 8-6-10, sd 3412 ft, hfw.

JEFFERSON COUNTY—Connell Oil Co.'s Anderson 1, SEc NE 31-4-8w, dr 2530 ft. Landis et al's Standfield 1, SEc 33-7-6w, sd 2979 ft. Barker et al's Major 1, C SE SW 34-5-6w, spd and sd. Godley Oil Co.'s Woodworth 1, C NE NW 36-5-4w, sd 550 ft. W. E. Norton's Unknown 1, SEc SE 7-5-9w, rotary rig. Cherry & Coush's Seay 1, NEc NW NW 4-7-5w, sd 1390 ft. C. R. Heacock's Cox 1, NEc SE 17-5-8w, lcn.

KAY COUNTY—Day Oil Co.'s Vandatta 1, SWc NW 8-26-2w, dr 4633 ft. Hickman & Barnhart's Sheets 1, C NW SW SE 25-29-2w, sd 835 ft.

KIOWA COUNTY—Connor et al's No. 2, NEc NW NW 34-7-16w, run 10-inch to 976 ft, Aubyme Oil Co.'s Countryman 1, SW SW NE 3-7-17w, dr 3080 ft. Alcorn Oil Co.'s No. 1, NEc SE SE SW 13-7-16w, sd 1860 ft.

LINCOLN COUNTY — P. & R. Corp.'s Hainzig 1, SWc NW NW 14-13-6, crooked hole td 2000 ft. Douglas Oil Co.'s Ewing 1, NWc 7-13-3, sd 2965 ft. J. C. Cook's Richardson 1, SWc NW SW 8-12-5, dr 3300 ft. Eugene Coste & Co.'s Ross-Fortune 1, SEc NW 26-12-2, fsh 3530 ft. Wilcox O. & G. Co.'s Smith 1, SEc NW NE 12-12-3, dr 3080 ft. F. O. Howarth's Harris 1, SEc NE 22-15-2, dr 3400 ft. Santrock Drilling Co.'s No. 1, SEc NW NW 17-15-3, sd 920 ft. Ruby et al's Cull 1, NEc NW 36-15-4, dr 3336 ft.

LOGAN COUNTY—Skelly Oil Co.'s Newman 1, NWc NW 32-19-3w, dr 2500 ft. Franklin Oil Assn.'s Moore 1, NWc SE SE 35-17-4w, sd 2250 ft. McMunn & Nixon's Fields 1, SWc NE SE 35-17-4w, rig. Haley & Pioneer Pet. Co.'s Quair 1, SWc SE 33-18-3w, spd and sd. Blackford O. & G. Co.'s Lair 1, C S L N½ SE 28-16-1w, fsh 750 ft. Magnolia Pet. Co.'s Pritchard 1, NWc 23-15-1s, lowering pipe td 3165 ft.

LOVE COUNTY — Driller Syndicate Oil Co.'s Wilson 1, NWc SE 11-7-2, sd 2830 ft. Simms Oil Co.'s Starritt 1, SEc NE SE NE 26-6-3, dr 2615 ft. Magnolia Pet. Co.'s Crowe 1, C NE NE SE 13-8-2, dr 200 ft.

MAJOR COUNTY—Texas Prod. Oil Co.'s Basin 1, SWc 6-22-14w, dr 1300 ft. Bradstreet Oil Co.'s Ratcliffe 1, C SW 9-22-9w, r 3602 ft. Frantz & Slick's Gray 1, C NW 36-21-11w, sd 1000 ft.

PONTOTOC COUNTY — Harper et al's Dener 1, NWc SE SE 19-6-7, dr 3380 ft. Highland Oil Co.'s Hatcher 1, C NW SW 4-4-5, dr 2170 ft. Smith et al's Norris 1, SWc SE 34-4-6, bad hole at 2540 ft. Galloway et al's Hays 1, NEc SE NW SW 13-3-6, sd 1160 ft. Craig et al's Starritt 1, NWc NE 5-4-5, sd 600 ft. American O. & R. Co.'s McDaniels 1, SEc NE SW 3-4-6, dr 2975 ft. Brinson et al's Brown 1, SEc SW SE 32-5-5, dr 1510 ft.

OKLAHOMA COUNTY — Firestone Oil Co.'s School 1, NWc SE 36-11-3, sd 4479 ft.

POTTAWATOMIE COUNTY — Ossie Oil Co.'s Howell 1, SWc NE 17-10-2, sd 3370 ft. Davis Detrick's McGathey 1, SEc 10-6-2, sd 3850 ft. H. C. Guinnup et al's Floyd 1, SWc SE 12-11-3, sd 3670 ft. North American Oil Co.'s Madgett 1, NWc 25-10-4, rig. Maud Oil Products Co.'s Yinson 1, NEc SW 18-7-4, co 2935 ft. McMann Oil Co.'s Neghan 1, SWc NW 19-7-4, sd 100 ft. Riverside Oil Co.'s McFarland 1, NEc SE NW 4-5-5, sd 650 ft. Halmond Osmond et al's Fiddler 1, SEc NW 4-5-5, sd 545 ft. Central National Oil Co.'s Toney 1, C SW SW SW 28-10-2, rig.

ROGERS MILLS COUNTY — Twin Hills Oil Co.'s McClure 1, NWc 15-16-26w, sd 4310 ft. Trio Oil Co.'s No. 1, SEc NW SW 3-13-26w, dr 3140 ft.

SEMINOLE COUNTY — Maxwell et al's Charty 1, C NE NW 33-6-6, fsh 2280 ft. Link Oil Co.'s Carolina 1, C SE NW 14-6-7, sd 2840 ft. T. B. Slick's Sanny 1, SWc 19-6-7, dr 4200 ft. Wm. McDougal's Dindy 1, C SW SW 30-6-7, rerun 5-inch to 3427 ft. R. F. Garland's Farlin 1, C NE NW 6-6-18w. Central National Oil Co.'s Harjo 1, C NE SW NE 14-11-7, rig. Transcontinental Oil Co.'s Davis 1, NE SE 22-7-7, dr 2540 ft.

WOODS COUNTY—Victor Oil Co.'s Van Buskirk 1, SWc SE 10-25-15w, sd 960 ft.

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PATENTS
Patents Obtained, Trade Marks, Patent Causes
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This tool has four replaceable quick

Painter-Bundy Rotary Bit and Core Drill

change cutters made of high speed steel, and the manufacturers claim that it materially reduces the hazard of common fishing jobs and the twisting off of drill stems. The four cutters are made of an exceptionally hard grade of steel, thereby making it possible to negotiate hard formation, while it is also claimed that these cutters drill a hole perfectly round and smooth. The cutters are held in position by a boss, and set screws eliminate loss motion, or possibilities of coming off in the hole. Extra sets of cutters can be purchased along with the bit to complete a well without losing the time and going to the expense of sharpening bits in the field.

A bottom hole core catcher is an added feature to this new type of rotary bit, and it is so constructed that it will take a core of the formation while drilling.

Three different sizes are to be carried in stock, while operators desiring special sizes of bits can have same made to order. The sizes now being turned out by the Fort Worth plant are 6¼, 9¼ and 11-inch bits.

The Painter-Bundy Tool Company claims that its new bit is practically fool proof in that there is nothing to go wrong while the bit is in the hole, and that it will permit drillers to stay in the hole longer while drilling hard formations than the ordinary rotary bits. Other information regarding this tool can be obtained from the manufacturer.

Hisey-Wolf Announce a New Grinder and Buffer

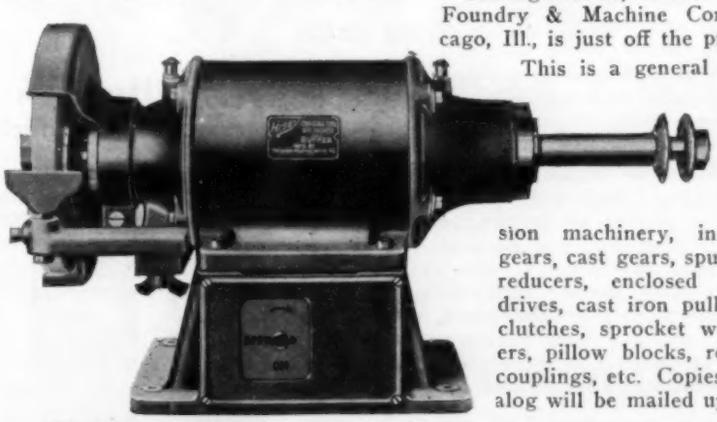
Adapted for a large variety of work requiring the use of a grinding wheel, buff wheel, wire brush wheel or rotary wire rasp wheel, the Hisey-Wolf Machine Company, Cincinnati, Ohio, is offering a small grinder and buffer of mench type.

A motor starter for the machine is a special feature, as it gives maximum protection to the motor from overload when starting and while running.

Spindles are unusually heavy, are made of high grade steel, and are accurately ground. Inner flanges are firmly keyed to the spindle, but can be easily removed by hand when desired.

Wheel guards are of standard dimensions and specifications as recommended by the American Engineering Standards Committee, and insure the best possible protection. They are adjustable, and are so designed that the wheels can be removed independently.

The bench type buffer and grinder is furnished for either alternating or direct current. Single-phase machines are for operation from lamp socket or lighting circuit wires. Two or three-phase machines are for operation on corresponding power circuit lines only, and can not be operated from lamp-socket connections.



Hisey-Wolf Bench Type Grinder and Buffer

Alternating current machines can be supplied for any higher voltage up to 550 volts, and the direct current machines can be furnished for special voltage from 80 to 250 volts.

The size of this machine makes it especially well suited for small shops. Each machine is supplied with suitable connector-cable, switch, wheels guard equipment, and one grinding wheel. Wire brush wheel, buff, or rotary rasp wheel are furnished upon special order.

Further information will be sent by the company upon application.

Booklet on Cementing

"Scientific Oil Well Cementing" is a booklet put out by the Halliburton Oil Well Cementing Company, Duncan, Oklahoma, and tells about the Halliburton process of cementing wells.

The booklet describes in detail how wells are cemented in rotary fields, and points out that the Halliburton process is fully as applicable to wells drilled with cable tools.

This statement, declares the company, is made on the strength of experience gained in cementing more than 12,000 wells, and may be taken as definite assurance that cable tool operators may now enjoy the same measure of protection that the rotary operator enjoys.

Copies of the booklet will be mailed upon request to the company .

Transmission Machinery

Catalog No. 30, of the W. A. Jones Foundry & Machine Company, Chicago, Ill., is just off the press.

This is a general catalog and contains 448 pages of matter describing power transmission machinery, including cut gears, cast gears, spur gear speed reducers, enclosed worm gear drives, cast iron pulleys, friction clutches, sprocket wheels, hangers, pillow blocks, rope sheaves, couplings, etc. Copies of the catalog will be mailed upon request.

The OIL WEEKLY will print on this page data on new oilfield equipment, improvements on old equipment, news of new catalogs, bulletins, etc. This department is handled exclusively by the editorial department and has no connection with the advertising department. Data will be carried on anything which the editorial department thinks of interest to our readers, regardless of whether or not the manufacturer is an advertiser in the The OIL WEEKLY.—Publisher.

New Plant of General Machine Works, Houston, Texas, located at 3608 Polk Avenue

Machine Shop Specializes On Pipe Line Repair Work

Houston, Texas, March 4.—A machine shop devoted to pipe line and Diesel and oil engine repair work and the manufacture of tank specialties has recently been opened at 4603 Polk Avenue, Houston, and is operating under the name of the General Machine Works.

The present modern shop had its beginning three and one-half years ago when George C. Schmidt started a small shop on West Capitol avenue. This shop specialized in Diesel engine and pipe line work until the increased volume of business necessitated moving to larger quarters.

In addition to many small machines to do the ordinary machine shop work the new shop is equipped with a 20 by 72-inch Cincinnati Universal Grinder for machining to accurate size chilled iron plungers, pistons, piston rods and cylinders. A 40-inch by 23-foot Niles, Bement, Pond lathe is installed for repair work on Diesel engine crankshafts and the like.

Aside from general repair work on pipe line pumps, Diesel and oil engines, a number of tank specialities are being manufactured and will be sold under the trade name of "Staytite." These include gauge hatches, combination gauge hatches, and thief holes, conservation vents and flame-arrestors, swing-joints and similar equipment especially designed to be used on vapor-tight tanks.

The new shop is managed by George C. Schmidt, assisted by F. G. D. Muller. Mr. Schmidt is a Diesel engine expert of 12 years experience and has been specializing in pipe line work for about 6 years. Mr. Muller has had six and one-half years experience as production and construction engineer for a big oil company in the Dutch East Indies, and served a big company in Houston as mechanical engineer for six years.

Two Pump Bulletins

Fairbanks, Morse & Co., Chicago, announce two new bulletins, one devoted to power pumps and the other to centrifugal pumps.

Bulletin 180-E describes in detail Fairbanks-Morse power pumps for direct, gear, chain or belt drive. Capacities of this pump range from 187 gallons displacement per minute to as high as 1562 gallons.

Bulletin 166-H describes single stage centrifugal pumps in four sizes, ranging from moderate to very high displacement.

Copies of both bulletins will be mailed upon request to the company at Chicago.

Torpedo Company Has Much Success With Its Product

Casper, Wyoming, March 4.—The Zero Hour Torpedo Company of this city, manufacturers of the Zero Hour Electric Bomb for detonating shots in oil wells, reports a world wide interest in its device aroused by advertising in The OIL WEEKLY.

Requests for the free booklet, "Oil Well Shooting, Past and Present," have come from every producing field in the United States, as well as from Canada, Old Mexico, England, the Island of Trinidad, Porto Rico, and other foreign countries.

This booklet is the result of intensive research by the company's production manager, W. F. Bleecker, B. S., Boulder, Colorado, and is, as far as is known, the only complete and authentic work of its kind.

The bomb itself consists of a timing mechanism, a battery, explosive charge, and an enclosing shell.

Branch offices of the company have recently been opened in Tulsa, Oklahoma, and Eureka, Kansas, and expansion to include other fields is contemplated.

Drilling Machines to Aid In Relieving India Famine

Waterloo, Iowa, March 3.—An order for five complete drilling machines has been received by the Armstrong Manufacturing Company of this city, from the Madras government of India.

These machines will be leased by the government to farmers in India to relieve the water famine which has gripped the country for several months. This initial order is said to be the forerunner of another, for at least 30 or 40 drilling outfits.

Laboratory Branch Opened For Service in Houston

Houston, Texas, March 3.—The Fort Worth Laboratories, Fort Worth, Texas, through their subsidiary, The Southwestern Laboratories, have opened an office in Houston, with H. B. Clay in charge. Mr. Clay will devote his time to physical testing of steel, cement, etc. He will also represent the Fort Worth Laboratories' instrument department with a full line of laboratory supplies and temperature instruments.

Leo I. Slonim, E. E., M. E., spent last week in Houston making investigations regarding electrical installations in the various Gulf Coast oil fields. Mr. Slonim came to Houston from California, and went from Houston to Tulsa. He is a special representative of the Russian government, sent to America by the Government Oil Trust, "Azneft," to make a study of electric power as applied to oil fields. He has been in America six months.

Proceedings of Gas Meet

Proceedings of the Natural Gas Association of America, at its nineteenth annual meeting, held in Cleveland, Ohio, May 19, 20, 21 and 22, 1924, have recently been published in book form.

The book contains a complete record of the meeting, including full text of all addresses delivered.

A. S. Taylor, formerly sales engineer for the United Alloy Steel Corporation, Canton, Ohio, is now with the Central Steel Company, Massillon, Ohio, in the same capacity.

Work Started on Looping Sinclair Line to Houston

Fort Worth, Texas, March 2.—The carrying capacity of the Sinclair Pipe Line Company's trunk line system from Mexia to its refinery and tank farm at Houston will be increased to about 33,000 barrels daily by the addition of 73 miles of 8-inch loops and extra units in three intermediate pump stations. Pipe is now rolling to start work on looping the system, and plans are to have the additional facilities in operation by next May.

Sinclair's line between Mexia and Sinco, where its refinery is located, is a combination 8 and 10-inch carrier, and the 75 miles of loops will make it partly 10 and double 8-inch. The longest loop will be 19½ miles of 8-inch out of Mexia station, 18 miles of 8-inch loops out of Easterly and Singleton stations and 17½ miles of 8-inch out of the Hufsmith station. An extra unit of one 250 h.p. Snow engine and a 6x24 Duplex pump is being installed in the latter three stations.

W. J. Moran, manager of the oil production division of the Empire Companies, with headquarters at Bartlesville, Oklahoma, has announced his resignation, effective April 1, in order that he may go into business for himself. Mr. Moran joined what is now the Empire Companies on January 13, 1913, and has been connected with the oil producing branch of the company since that time.

George N. McGarvey is representing the Sargent Engineering Corporation, Los Angeles, California, in the Mid-Continent territory. His work at present is devoted to introducing pumping specialties in the fields.

The Barber-Greene Company, manufacturers of traction ditchers, has announced three assistant district managers: H. H. Driver will assist J. A. Gurney, in Pittsburgh; F. S. Howard, Jr., will assist E. D. Cassel, in Cleveland, and P. S. Frederick will assist G. B. Gould in Detroit.

George W. McLean, Jr., who has been in charge of the Mid-Continent business of the Wall Rope Works, with offices in Bartlesville, Oklahoma, is now connected with the Bridgeport Machine Company, as manager of wire rope distribution.

S. K. Burgess, secretary-treasurer, and J. O. Clutter, sales manager, D. & B. Pump Company, headquarters in Los Angeles, departed last week for a trip through the Mid-Continent.

J. P. Ratigan, Los Angeles, left early last week for a trip through Texas and Oklahoma, probably stopping off in the Mountain States on his return to California.

"UNITED" 10 x 40 STANDARD

No Roundabout Seams

Double riveted, one piece head flanged and dished, fire course in one sheet still bottom steel—and four seams Horizontally.

Get "United" prices before buying

UNITED IRON WORKS, Inc.
Kansas City, Mo.

Boiler Tubes
Charcoal Iron Lapwelded Steel

"Avoid frequent tube replacements by using our charcoal iron boiler tubes assuring long tube life and low ultimate cost under adverse water conditions."

THE TYLER TUBE & PIPE COMPANY
WASHINGTON, PA.
Texas Stock—Harrisburg Pipe & Pipe Bending Co. of Texas, Houston, Texas.

The BAKER Float Collar

is an essential in deep well drilling.

Long strings of casing are well protected with a Baker Float Collar in the string. It relieves the derrick and drilling equipment of excessive strain, that often times proves costly. The deeper the well the more vitally essential is a Baker Float Collar to safety and economy.

Baker Casing Shoe Co.

Box 264, Hutington Park Station,
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Phone Del. 4765
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B & A Specialty Company, 311 W. 1st St. Tulsa, Okla.

LETTERS OF Paul Peebles P.S.G.

mi deer cleopatry

cleo hunny I gess yu hav seed in the pappers where about all the scientistes what noes ennything about sees-more-grafts is tryin 2 figger out how cum a erth tremmer whitch it was last satterdy nite & is tryin 2 figger if it is reely a subterrenan disturbents of sum kind or mabe just the brakin up of winter. it is sum arguments in the favor of the last propersishun on account of the shakin was in the north cuntry & canada & also it happened on satterday nite about the time a hole lot of warm bath watter was being pored out. this wood be enuff of a explanashun 2 the ordinary lay mind cleo, but us scientistites has 2 look moar deeper than that for a reesen.

I hav not seed where the honerable senator from florida has issued enny statement on the facks in the case, but I gess when he gits around 2 it he will say that the erthqwake was not nuthin but the vibrashun set up by the sincopated advance of gasoleen prises. he cood git bibul authority for his theery bi pointin out the fallin down of the walls of jeriko.

if I did not no no better miself I wood say that it was all caused by the blowin out of the tires on mi own flivver. but I will tell yu more about that latter. I kinder beleev that the tirse was the effck mabe insted of th caus. it had a hol lot2 do with yu hunny, but I will tell yu about that after I hav got threw explainin 2 yu just how cum it was a erthquake.

I no what I no about this on account it was recorded on mi own sees-more-graft whitch I hav bin keepin in mi room & werkin on in the between times when I did not hav nuthin elst 2 do so that I can bring it up 2 the perfections whitch I always demands of ennything whitch I patents and invents personal.

I hoap I do not tire yu with mi deetale as I outline just how this here natral pheenominee was brought about bi artificial means & as the results of the mashinashuns of man. paradoxikally speakin this mite be a little confusin 2 yore mind hunny, on account of yu bein a woman, but in scients it is possible for sumthin 2 be both. therefore it is possible for a thing 2 be natral & also artifishal as I wiill explane. I hav 2 follow this out in all detales so yu can git what I meen, but I hoap yu will understand what I tell yu. Because hunny yu are a grate comfort 2 me in lissenin 2 mi arguments on scients with full simperthy even when yu do not understand. yu see I hav a grate amount of trubbel because them whitch can understand sutch do not hav no simperthy with what I propound, & yu giv me all simperthy & can't understand what I say. Hunny, it is a funny world.

well 2 git back 2 the subjeck agin. I no that oil had sumthin 2 do with that erthqwake because I made mi sees-more-graft 2 record about oil & it sed it was a erthqwake, so it must a bin a oil erthqwake. so all I had 2 do is figger out how come, & havin a start on the rest of the seesmoregraft-oligistes on account of noin that oil was at the bottom of it, I am cleen ahed of them on what was the cause & mabe the effectks of the erthqwake.

hunny it was bound 2 cum sometimes so it miteswell be last satterday nite. yu no they hav bin gittin oil out of the ground in the midcontinent for a long time without nuthin happenin. of corse when they get oil and gas out it mostly gits filled up with salt watter in the place of it, but the watter has 2 cum from somewheres & whereever it comes from it leeves a open plase unlessen it cums out of the see whitch is pretty hard for it 2 do in the midcontinent on account it is so up hill from the gulph & also from the oshun on both sides. In the case of feelds kinder clost 2 the see shore like it is at goose creek the watter just runs in from the bay & gits in where the oil was & the werld keeps on turnin around lik it aint nuthin happened & nuthin happens.

but in the case of the midcontinent feelds & also sum of them up more further north it is a entirely more diferenter matter. because when they take the oil out of the ground it has 2 fill up with watter whitch has 2 cum from sum other plase in the ground whitch leeves holes whitch has 2 be filled up sumtimes with dirt & rocks on account it is sed that nachure hates a vackum & order is hevens first law. so evrything went along pretty pretty till it was a eclipst of the sun acrost the cuntry where the erthqwake was felt & also that feller got caut in a cave & starved 2 deth & the innerds of the erth got 2 rumbin around until it was a reel comoshun whitch made the erthqwake whitch is all that it is 2 a simple matter.

now that is all about the cause. what will be the effeck?

well the innards of the erth did not shift mutch around enny oil feelds on account the casins set kinder makes reinforcin irons whitch holds her in plase, but all the same it was sumthin happend down there whitch will have a effeck on the future of the oil bizness. because now when old wells is cleaned out sum of them will make more oil & sum of them will not.

so now that I hav got yu posted up 2 the latest scientifick events of the day, we can git back 2 persernel matters. hunny I wood a bin down 2 sea yu sunday for shure only I just cood not git there on account of the bad luck whitch I had. I started alrite on account the widder where I bordes says it is a pretty day & less go ridin so I figgers I will run her down 2 goose creek & I cood git a chanct 2 sea yu a few minnits mabe. but when I gotten on the ferry at linchberg the ferryman told me I had a flat. well I fixt it & borten me a new tube. & then we went a little ways & I had 2 git out & git sum flowers & torn mi pants on a bob wire fense pretty bad so I wanted 2 keep sittin in the car so I went a little farther and had anuther flat & gotten a feller 2 fix that because I did not want 2 stoop around 2 mutch after that bob wire axcident & then like it was not enuff trubbel alreddy I did not git nowheres until I had a blow out whitch I had 2 go back 2 the same plase & git fixed. hunny sutch luck as that makes a feller wisht that he was not no gentleman. I cood not cuss because it was laddys present & I dam neer busted wide open but I cum threw smilin whitch was pretty good under the cirsumstantses.

I gess yu do not blame me for not cummin 2 sea yu after mi pants was tore. I gess I will hav 2 start carryin me a spare pare of pants the same as I carry a spare tire, only if I was 2 hav fore puntchers & blowouts in mi pants I wood be in a bad fix just the same.

hopin yu are the same,

yore lovin pau

United Oil Change

Los Angeles, Calif., Feb. 28.—It was announced this week that a deal had been closed whereby the stock held by C. F. Whittier and J. M. Kent in the United Oil Company had been purchased by the Hellman interests. Mr. Whittier was president of the United while Mr. Kent was vice president and general manager. It is understood that the stock was sold at about $50 a share, the stock having a par value of $25 a share. The United Oil Company has an authorized capital of $10,000,000 and has extensive producing, refining and marketing interests. The Richfield Oil Company is a subsidiary. New officials have not been announced.

Introduction of Rotary Drilling to Baku

(Continued from page 28)

pany he was employed by. This attitude of the management swelled the little head of the driller and in a very short time afterwards he would not do all that he as a driller was expected to do. And as a consequence of this negligence a trouble developed while a casing was being lowered. Complications in the relations with the employers followed and much to the surprise of all concerned he unexpectedly disappeared from Baku, leaving behind him his salary and luggage. He hurried back to the Texas camps to warm up the cold feet he had got in Baku.

A third driller shipped from the prairies of Oklahoma came all unafraid, ready to turn whole Baku, and all Russia for that matter, upside down. A fishing job occurred on the very first well he was drilling. The man lost himself. He tried to explain what he wanted to fish with, he drew a picture and a "picture" it was; no one could understand the designer of fishing tools. Finally some one suggested that the man was ignorant of fishing methods and evidently did not know what to do in the case and was using the old familiar to Russian spectators method of "bluffing himself into respect". He got fired and up to the present maintains that he was not given a chance.

A fine chap from California, tall and handsome, with a beautiful wife, came all the way from the Pacific to the Caspian shores and commenced to work on rotaries. Everybody had thought that this one was a reliable fellow. Everything spoke in his favor. He was accurate, clean in his habits, very particular and systematic in rigging up his derrick and thorough in selecting his crews. Some flaws were noticed when starting to drill his first well, but were accounted for in some way or other. Then in the intimate exchange of biographical data with some other American driller it leaked through that he did not know much about the rotary drilling, having been in the States engaged in cable tool drilling only. His employers lost on him several thousand dollars. The supply house that had recommended him lost a magnificent customer, one of the biggest in old day Russia.

Of the seventeen American drillers the writer came into contact with just four men were strictly reliable. Others were adventurers, sent out by supply houses through sheer negligence, on the basis of men's personal tales and glorifications, and were bent on mischief. One turned out to be an excellent driller and God fearing man. The other three were just mediocre. No one made money in Russia. And I doubt if any one of them will ever willingly go to that country, on pre-war terms when Americans were paid $250 and $300 a month. Today one should be given at the least $500 per

TRADE MARK
KEYSTONE
REGISTERED U. S. PATENT OFFICE

Improved Deep Well Rig

EMBODIES THESE VALUABLE FEATURES

Friction Tool Hoist—Casing Reel—Indestructible Steel Sills—Keystone Patented Spudding Device—V-Friction Brakes, Patented Babbitted Bearings throughout.

This machine is new—modern, complete, the product of an old and established concern. It is backed by 35 years of experience in the manufacture of portable drilling rigs and a world-wide reputation.

We are building three sizes: No. 27, for 2500 feet; No. 32, for 3000 feet; and No. 35, for 3500 feet depth.

Machines can be seen in various parts of the Kansas, Oklahoma and Pennsylvania fields. Let us wire you where to find one.

BULLETIN 302 and prices on request.

KEYSTONE DRILLER CO.
BEAVER FALLS, PA.
Branch Office and Plant
Joplin, Mo.

WILLIAMS
SUPERIOR DROP-FORGED TOOLS

"VULCAN" BACK-UP WRENCH

A Powerful Wrench of Rugged Strength:—

Easy to Operate
Absolutely Dependable
Fully Guaranteed

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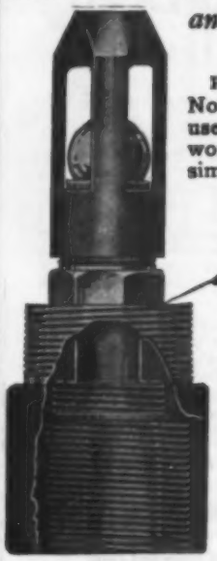
J. H. WILLIAMS & CO.
"The Wrench People"
New York BUFFALO Chicago

SALESMAN WANTED!

Man who has had practical experience in the Oil Well Supply Business and who is qualified to take charge of branch store.

Keystone Pipe & Supply Company
315 W. T. Waggoner Bldg.,
FORT WORTH, TEXAS

Adams Combination Cuff and Standing Valve



Patent No. 1353303

Not necessary to use special cuff on working barrel — simply take a top cuff off of any old barrel and substitute for bottom cuff, then screw hydraulic valve in place.

Made of bronze with steel crown ball and seat.

Has a salvage value.

Sizes 1¼, 2¼, 2¾, 3¼ inches

Manufactured only by

Southern Brass Mfg. Co.
HOUSTON, U. S. A.

"CUT OIL"

is a problem in CHEMISTRY

An "emulsion" represents a condition of a liquid which can be fully, scientifically and economically corrected by use of the chemical process. Use TRET-O-LITE process when you have cut oil and tank bottoms that require treating.

Wm. S. Barnickel & Co.
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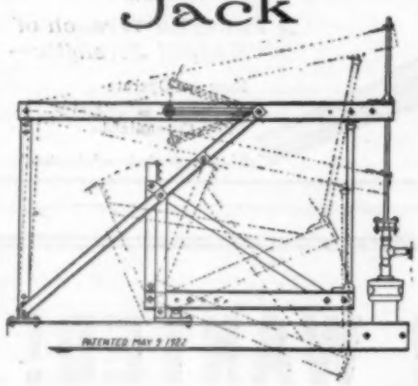
Tret-O-lite
Reg. U. S. Pat. Off.

A Straight Up-and-Down Pumping Stroke

The Jensen Straight Lift Jack



The Jensen Jack

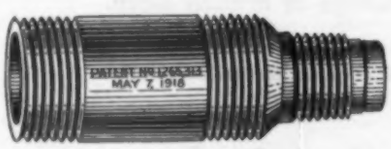
gives this and at the same time lessens wear on the polish rod and stuffing box.

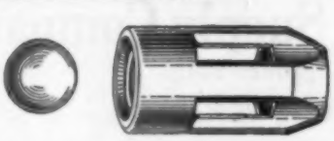
Increased production naturally results while operating costs are reduced.

Jack sold complete or only the frame, which can be installed on any well giving a straight-lift jack.

The Straight Lift makes a four-foot stroke practical. Made in No. 2 and No. 3 sizes.

Jensen Bros. Mfg. Co.
Nowata, Oklahoma





Attention Field Managers and Purchasing Departments

Reduce your tubing jobs by using Ewing Patented Hydraulic Standing Valves, made with regular and oversize balls and seats.

Stocked by all Leading Supply Companies and Made ONLY by

Sour Lake Machine & Supply Company
Sour Lake, Texas

month to overbalance the pay in this country, which, of course, is impossible for a government-run undertaking as the Russian fields are today. The recent visits to Russia of a group of American drillers sent there by concession hunting specialists, were of short duration. The least said the better. The drillers have liked the people in Baku, especially the engineers of the district, and are rather bitter in denouncing their American employers, ignoring the actual conditions under which private organizations are allowed to work in present day Baku. It is of interest to note that the recent visit to this country of the head of the Russian Oil Trust, a Soviet government corporation, much heralded in the American oil press by the ever obliging supply houses, resulted in certain arrangements by virtue of which several Soviet engineers are just now being shown through the American oil fields and given opportunities to study the latest methods of oil production, etc.

Mexican Output for 1924 Shows Decline

(Continued from page 49)

All of this was heavy oil, as light oil showed a decrease of 36,250 barrels.

Gulf Increases

The Gulf Oil Corporation was one of the few companies operating in Mexico in 1924 which showed an increase in production, having withdrawn 3,223,311 barrels more in 1924 than in 1923, despite the fact that light oil fell off more than 50 per cent because of the increased intrusion of salt water in the Toteco holdings of the company. The net increase was accounted for because of production in Cacalilao. This production, however, dropped in December to less than 25 per cent of what it had been in January. Of the total of 8,543,038 barrels produced during the year, 3,367,431 barrels were produced in January, February and March, with but 244,476 barrels the last month of the year.

The Gulf was one of the largest operators in what was known as the independent section of Cacalilao, where acreage was scattered amongst a great

(Continued on page 94)

SQUEAKS FROM THE BULL WHEEL

Teacher: "Children, can any of you tell me what is the most dangerous part of an automobile?"

Tommy: "Yes, miss, I can! It's the driver."—Magnolia Oil News.

A traveling salesman, driving his car along the road, came upon a victim of a grade-crossing accident. The car was a complete wreck and its former occupant was just "coming to." The salesman leaned over the injured man and shook him, asking:

"What's the matter, brother, an accident?"

"Yes."

"Didn't the engineer blow his whistle?"

"No."

"Did anyone see it?"

"No."

"Well, tell me, has the claim agent been around yet?"

"No."

"Then, for heaven's sake, move over and let me lie down."

Fair Motorist: "Really, I didn't hit you intentionally."

Irate Victim: "What have you got that bumper on your car for, if you aren't aiming to hit someone?"—Purple Cow.

Two Scots were fishing but were new at the game.

"Got a bite yet, Jock?"

"Naw," said Jock, "I don't believe my worm's half trying."—Panther.

A brass band once visited a small village and the people were delighted with it, but they couldn't make head or tail of the trombone, so they sent for Old Peleg Hoskins, who claimed he understood music.

Well, Old Peleg watched the performance of the trombone player for some time. Then he said, with a sneer:

"Take no notice of him, fellows. There's a trick in it; he don't swallow it every time."—Los Angeles Times.

Woman Customer: "I want to get a corset, to put on around the house."

Absent-minded Clerk: "How large is your house?"

Husband (waking suddenly at 11:30): "What in the world was that noise?"

Wife: "It's all right, dear. The people are coming home from the opera and I slipped down and give our front door a slam, so the neighbors would think we'd been there."—Boston Transcript.

Mrs. Jones found Mrs. Smith, the aviator's wife in tears.

"Whatever is the matter, my dear?" she asked anxiously.

"I'm worrying about Harold," said Mrs. Smith. "He's been trying for a week to lose our cat, and as the last resource he took her up in his plane. He said he would take her up two thousand feet and drop her over the side."

"Well, what is there to worry about?"

"Lots," exclaimed the frantic woman, "Harold isn't home yet and the cat is."—The Continent.

"Our dining room is being decorated in spatter work."

"Spatter work?"

"Yes. We have grapefruit for breakfast every morning."—American Legion Weekly.

The following is reported to be the verdict by an Iowa jury in a suit against a railroad company: "If the train had run as it should have ran; if the bell had rang as it should have rang; if the whistle had blowed as it should have blew, both of which it did neither—the cow would have not been injured when she was killed."—The Argonaut.

Wholesaler—These new hats are the latest novelty, and are absolutely the only thing the college men are wearing, yet you've ordered nothing but boys' sizes. How do you account for that?

Retailer—A man with a normal head wouldn't wear one.—Washington Sun Dodger.

He—They say that people who live together grow to look alike.

She—Then you absolutely must consider my refusal as final.—New York Medley.

Two men were becoming abusive in the course of a political quarrel.

"I think," cried one of them, "that there is just one thing that saves you from being a barefaced liar!"

"What's that?" asked the other.

"Your whiskers," was the reply.—Tit-Bits (London).

"I say my girl is getting stingy."

"Why so?"

"I asked her for a bushel of kisses—"

"Yes?"

"And all she gave me was a peck."—Texas Ranger.

"Your husband needs a complete rest. I will prescribe a sleeping draught."

"When shall I give it to him, doctor?"

"Don't give it—take it!"—Answers.

"Seen any mysterious strangers around here lately?" casually inquired the detective from the city.

"Wa-al," answered Uncle Eben, "there was a feller over to town with the circus last week what took a pair o' rabbits out o' my whiskers."—Arizona Who Doo.

"One morning," related the professor, "as I was strolling along a street in Edinburgh, I stopped at a tobacconist's and bought some cigars. Finding myself out of matches I asked the cleark for some.

"'Ha'pence a box,' said he.

"'What! Why in America when a man buys a cigar he is given a small package of matches.'

"'I'm sorry, sir, but they're ha-pence a box here.'

"And do you know," added the professor. "I had to walk back eight blocks to my hotel to get some matches.".

"Before we were married you called me an angel."

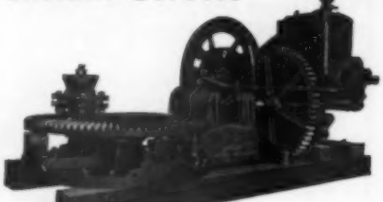
"I know it."

"But now you don't call me anything."

"That shows my self-control."—London Opinion.

LIGHTNING
OIL FIELD SUPPLIES
PUMPING POWERS, JACKS, STUFFING BOXES, ETC.

Instant Service



More Power—Less Vibration

They Are Correct in Design

Husky Enough to Do the Job Right

The reliable eccentric motion does away with jerky lines.
Built in three sizes:
No. 4—Belt Drive, weight 6500 lbs. For deep wells.
No. 2—12 H. P. engine, weight 4600 lbs.
No. 1—6 or 8 H. P. engine, weight 3200 lbs.

Turntable gear is easily removable and having a broad face, coarse teeth and large diameter will stand up to the heaviest loads.
SHACKLE LINES SET LOW TO THE GROUND (13 in.) ELIMINATE EXCESSIVE STRAIN. QUICKLY INSTALLED
Oil Field Supply Dept.

KANSAS CITY HAY PRESS COMPANY
Kansas City, Mo.

AJAX
DRILLING ENGINES

"Famous in every Oil Field"

AJAX ENGINES

Genuine Ajax Engines and parts are obtainable at all branches of the
National Supply Companies

AJAX IRON WORKS — Corry, Penna.

Hotel Lassen
WICHITA

Economy in management enables the Lassen to offer popular prices, yet service is on a par with the leading hotels in larger cities. Right in the business, theater and shopping district.

350 FIRE PROOF ROOMS

From $2.00 *per Day*

Rate Schedule Which Never Changes

	1 per.	2 per.
42 Rooms, Lavatory	$2.00	$3.00
82 Rooms, Private Bath	2.50	4.00
83 Rooms, Private Bath	3.00	4.50
30 Rooms, Private Bath	3.50	5.00
35 Rooms, Private Bath	4.00	5.50

Large parlor rooms—twin beds for two persons—at prices slightly above this schedule.

Nearly Everybody Stops at the Lassen

HOTEL LASSEN
WICHITA KANSAS

MacCLATCHIE
QUICK CHANGE HEAD

Patented—Pats. Pending.

Used for cementing, circulating and capping wells.

Can be put in your casing and ready for the pressure within 22 seconds with ease. Can be taken out in much less time.

The hose remains connected when putting this head in or out of the pipe.

FAST, SAFE, SURE
Tested 1200 lbs.

All sizes, 4½" to 18".

MacCLATCHIE MFG. CO.
COMPTON, CAL.

(Continued from page 92)

number of small owners. This section has gone almost completely salt.

Salt water, primarily in the Tierra Blanca wells owned by the Mexican Eagle in conjunction with the Huasteca Petroleum Company, is reflected in 1924 production of the Eagle, totaling 5,743,690 barrels, against 9,401,400 barrels the year previous.

The decline in producing wells together with lack of success in drilling campaign in the light oil district forced the company to start operations in some of its holdings in the Panuco region with the result that 669,959 barrels of heavy oil were produced during 1924, against nothing the previous year.

Early in 1924 one of the largest producers in the republic was the independent group known as the Rich Mex Oil Company owned by Tampico residents. This company controlled considerable acreage in the independent district of Cacalilao, and in January was averaging 31,000 barrels a day production, which increased in March to 33,000 barrels daily, but which dropped in December to less than 1000 barrels daily. All of this production was purchased by the Doheny interests.

Operating exclusively in the light oil district and with no success in its drilling operation, the Atlantic Gulf and West Indies declined from 3,180,326 barrels production in 1923 to 1,696,492 barrels in 1924. For the first time in its history it has started operations in the heavy oil region and is now drilling several wells in Corcovada unproven territory north of the rich Cacalilao property.

Successful drilling in Alamo permitted the Penn Mex Fuel Company to nearly double production in 1924, when 1,675,143 barrels of crude were taken from the group of wells in this hacienda. However, unless new territory is developed, the company, based on the present rate of decrease in production, will practically pass out of existence by the end of 1925. In January, 1924, 202,635 barrels were produced in Alamo, while in December the average was less than 3000 daily.

Doing practically no drilling and with no success in its small operations, both the New England Fuel Oil Company (Magnolia) and The Texas Company, showed continued decreased production with the former dropping off 50 per cent, while the latter dropped off about one-third from 1923.

Detailed figures of the larger companies showing light and heavy production for 1924, together with 1923, figures and the increase or decrease follows:

D. H. Greenwood, manufacturer of oil field tools, headquarters Los Angeles, left home March 1 for a trip through Texas and Oklahoma, planning stops at Houston, Dallas, Fort Worth and Tulsa. He may take a trip through Arkansas and Louisiana while away.

GUIDE FOR PURCHASERS

Accountants—
F. C. Lancton

Air Compressors—
Continental Supply Company
Gardner Governor Company
Hope Engineering & Supply Co.
Southern Engine and Pump Co.

Air Lift Pumping Equipment—
Gardner Governor Company
Sullivan Machinery Co.

Asbestos Roofing—
Johns-Manville, Inc.

Attorneys—
Hirsch & Hannay
Vinson, Elkins & Wood

Balls and Seats —
Bradford Motor Works
Continental Supply Company
Norris Bros.
The Charles N. Hough Mfg. Co.

Band Wheels—
Continental Supply Company
Emsco Steel Products Co.
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.

Bell Nipples—
The Cunningham Co.

Belting—
Bridgeport Machine Company
Continental Supply Company
Frick-Reid Supply Company
Gustin Bacon Manufacturing Co.
International Supply Company
Oil Well Supply Company
Republic Supply Co.
Stanley Belting Corp.

Black Diamonds—
R. S. Patrick

Boilers—
Bridgeport Machine Company
The Brownell Company
Continental Supply Company
Frick-Reid Supply Company
International Supply Company
The National Supply Cos.
Oil Well Supply Company
Republic Supply Company
Regan Forge & Engineering Co.
Star Drilling Machine Co.
Titusville Iron Works Co.
United Iron Works, Inc.
See Oil Field Supplies and Tanks

Boiler Tubes—
The Tyler Tube & Pipe Co.

Boiler Scale Remover—
Ward Chemical Company

Blowout Preventer—
Baash-Ross Tool Company
Cameron Iron Works
Continental Supply Company
Regan Forge & Engineering Co.

Burners—
Continental Supply Company
Gaso Pump & Burner Mfg. Co.
Gould Burner Company
Regan Forge & Engineering Co.

Bull Wheels—
Continental Supply Company
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.

Calf Wheels—
Continental Supply Company
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.

Carbon and Bortz—
R. S. Patrick

Casing—
Continental Supply Company
Regan Forge & Engineering Co.
Republic Supply Company
Superior Tube Company

Casing Shoes—
Baker Casing Shoe Company
Bridgeport Machine Company
Continental Supply Company
The National Supply Cos.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Republic Supply Company
W-K-M Company

Cement Hardener—
The Sullivan Company
W-K-M Company

Cement Head—
MacClatchie Mfg. Co.

Chain—
Baldwin Chain Company
Chain Belt Company

Chain Blocks—
Yale & Towne Mfg. Company

Charcoal Iron Boiler Tubes—
The Tyler Tube & Pipe Co.

Collapsible Rotary Bits—
O. M. Carter

Conservation—
Wescott and Greis

Control Heads—
Continental Supply Company
Palmer Specialty Company
Southern Brass Mfg. & Plating Co.

Core Drills—
O. M. Carter
Elliott Core Drilling Co.
Spengler Core Drilling Co.

Compressors—
Butler Mfg. Company
Continental Supply Company
Gardner Governor Company
F. W. Heitmann Co.
Hope Engineering & Supply Co.
Sullivan Machinery Co.
United Iron Works, Inc.

Cordage—
Continental Supply Company
The National Supply Cos.
Republic Supply Company

Crown Blocks—
Baash-Ross Tool Company
Continental Supply Company
International Derrick & Equipment Company
Lufkin Foundry & Machine Co.
Oil Well Supply Company
Parkersburg Rig & Reel Co.
Superior Tube Company

Couplings—
Continental Supply Company
Harrisburg Pipe & Pipe Bending Company
A. O. Smith Corporation

Dehydrating Processes—
Wm. S. Barnickel Co.
Petroleum Rectifying Co.

Derricks and Rigs—
International Derrick & Equipment Company
Lee C. Moore & Co.
National Turnbuckle Derrick Co.
Parkersburg Rig & Reel Co.
Peden Iron & Steel Co.
Robertson-McDonald Lumber Co.

Diamond, Black—
R. S. Patrick

Diamond Core Drills—
Sullivan Machinery Co.
R. S. Patrick

Diamond Drilling Carbon—
R. S. Patrick

Disc Bits—
Continental Supply Company

Ditchers—
Barber-Greene Co.
Buckeye Traction Ditcher Co.

Draw Works—
Continental Supply Company
Lufkin Foundry & Machine Co.

Drilling Cables—
American Cable Co.
Bridgeport Machine Co.
Continental Supply Company
Frick-Reid Supply Company
The National Supply Cos.
Peden Iron & Steel Co.
Regan Forge & Engineering Co.
Republic Supply Company
Star Drilling Machine Co.
Wickwire Spencer Steel Corp.
Williamsport Wire Rope Co.

Drill Pipe Slips—
Baash-Ross Tool Company
Continental Supply Company

Drilling Machines—
Bridgeport Machine Co.
Continental Supply Company
Keystone Driller Co.
Parkersburg Rig & Reel Co.
Star Drilling Machine Co.

Drill Collars—
Baash-Ross Tool Company
Continental Supply Company

Drill Pipe Cutting—
Baash-Ross Tool Company
Houston Engineers, Inc.

Drilling Tools—
Acme Fishing Tool Co.
Baash-Ross Tool Company
Continental Supply Company

Drilling, Diamonds for—
R. S. Patrick

Drill Pipe—
Continental Supply Company
Frick-Reid Supply Company
Republic Supply Company
Reading Iron Company

Drilling Equipment—
Baash-Ross Tool Company
Bridgeport Machine Co.
Continental Supply Company
Republic Supply Company
Star Drilling Machine Co.
Western Supply Company

Drive Pipe—
Continental Supply Company
Republic Supply Company
Reading Iron Company

Electrical Equipment—
Westinghouse Elec. & Mfg. Co.

Elevators—
Bridgeport Machine Company
Continental Supply Company
The Cunningham Company
Dunn Mfg. Co.
Gulf Coast Machine & Supply Co.
LeBus Rotary Tool Works.
Wilson & Willard Mfg. Co.

Engines, Diesel—
Western Machinery Co.

Engines, Gas—
Climax Engineering Co.
Continental Supply Company
Frick-Reid Supply Co.
Hope Engineering & Supply Co.
Spence Machine Co.
The Pattin Bros. Co.
Western Machinery Co.

Engines (Gasoline or kerosene)—
Climax Engineering Co.

Engines, Oil—
Continental Supply Company
Frick-Reid Supply Co.
The Pattin Bros. Co.
Western Machinery Co.

Engines, Pumping—
Ajax Iron Works
Bessemer Gas Engine Co.
Bridgeport Machine Co.
Climax Engineering Co.
Continental Supply Company
The Brownell Company
De La Vergne Machine Co.
Franklin Valveless Engine Co.
Frick-Reid Supply Co.
Hope Engineering Co.
Lucey Mfg. Corp.
Lufkin Foundry & Machine Co.
The National Supply Cos.
National Transit Pump & Machine Company
Oil Well Supply Company
Peden Iron & Steel Company
Republic Supply Company
Rock Island Plow Company
Spence Machine Company
Southern Engine & Pump Co.
Titusville Iron Works
Western Machinery Company

Engineers—
David Donoghue
Foster & Reiter
Hope Engineering & Supply Co.
Lee C. Moore & Co.
Oil Conservation Engineering Co.
D. T. Ring
Wescott and Greis

Fire Protection—
Continental Supply Company
Oil Conservation Engineering Co.

Fish Tail Bits—
Continental Supply Company
Frick-Reid Supply Company
Lucey Manufacturing Corp.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
W-K-M Co.

Floor Circle Brace—
Continental Supply Company
Dunn Mfg Co.

Fuel Oil—
Gulf Refining Company
Sinclair Refining Company

Gasoline Extraction Compressors—
Bessemer Gas Engine Co.
Continental Supply Company
Hope Engineering & Supply Co.
Sullivan Machinery Co.

Gauges—
Continental Supply Company
Oil Conservation Engineering Co.
Wescott and Greis

Gas Engines—
S. M. Jones Company

Gas Traps—
American Tank Company
Continental Supply Company
Lorraine Corp.
Smith Separator Company
Trumble Gas Trap Co.

Gasoline and Oil Storage Tanks—
American Tank Company
Butler Mfg. Co.
Graver Corporation
Continental Supply Company
Kansas City Struct. Steel Co.
Parkersburg Rig & Reel Co.

Genuine Wrought Iron Casing—
Reading Iron Company

Geologists—
Joseph L. Adler
Alexander Deussen
David Donoghue
Edwin B. Hopkins
Foster & Reiter
Heath M. Robinson

Governors—
Gardner Governor Company

Grips and Clamps—
Continental Supply Company
J. P. Ratigan
W-K-M Co.

Heat Exchangers—
Brown Welding & Machine Co.
Hope Engineering & Supply Co.

Hoists—
Emsco Steel Products Co.

Hose—
Continental Supply Company
Gustin Bacon Manufacturing Co.

Houses—
Crain Ready-Cut House Co.

Laboratory Equipment—
Continental Supply Company
Fort Worth Laboratories

Lapwelded Steel Boiler Tubes—
The Tyler Tube & Pipe Co.

Lighting Systems—
Bridgeport Machine Co.
Continental Supply Company
Westinghouse Elec. & Mfg. Co.

Line Pipe—
Continental Supply Company
Republic Supply Co.
Reading Iron Company

Lumber—
Robertson-McDonald Lumber Co.

Manufacturers—
Robinson Packer Company

Maps—
Heydrick Mapping Company

Meters—
Continental Supply Company
Wescott and Greis

Motors—
Westinghouse Elec. & Mfg. Co.
Twin City Company

Oil Field Equipment—
H. Rickman

Oil Field Supplies—
American Tank Company
Bridgeport Machine Co.
Butler Mfg. Co.
Continental Supply Company
The Cunningham Company
Frick-Reid Supply Co.
Graver Corporation
Erle P. Halliburton
International Supply Company
Kansas City Struct. Steel Co.
Lee C. Moore & Co.
Lucey Manufacturing Corp.
The National Supply Cos.
Oil Well Supply Company
Parkersburg Rig & Reel Co.
Peden Iron & Steel Co.
Pelican Well Tool & Supply Co.
Republic Supply Company
Regan Forge & Engineering Co.
Robinson Packer Company
Smith Separator Company
Southern Brass Mfg. & Plating Co.
United Iron Works, Inc.
W-K-M Co.
J. H. Williams & Company

Oilwell Casing—
Continental Supply Company
Frick-Reid Supply Company
Republic Supply Company

GUIDE FOR PURCHASERS—Continued

Oil Well Cementing—
Erle P. Halliburton

Oil Well Shooting—
U. S. Torpedo Co.
Zero Hour Torpedo Co.

Overshots—
Baash-Ross Tool Company
Continental Supply Company
LeBus Rotary Tool Works

Packers—
Continental Supply Company
The Guiberson Corp.
Layne & Bowler
Robinson Packer Company
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
W-K-M Co.

Packing—
Continental Supply Company
D. F. Connolly Agency
Gustin Bacon Manufacturing Co.
Frick-Reid Supply Co.
The National Supply Cos.
Peden Iron & Steel Co.
Pelican Well Tool & Sup. Co.
Republic Supply Company

Paints—
Continental Supply Company
Peden Iron & Steel Co.

Panel Boards—
Westinghouse Elec. & Mfg. Co.

Patents—
Hardway & Cathey
Jack A. Schley
Jesse R. Stone

Pipe Grips—
Continental Supply Company
W-K-M Co.
J. H. Williams & Company

Pipe—
A. M. Byers Co.
Continental Supply Company
Frick-Reid Supply Co.
F. W. Heitmann Co.
Harrisburg Pipe & Pipe Bending Company
International Supply Company
The National Supply Cos.
Oil Well Supply Company
Peden Iron & Steel Co.
Reading Iron Company
Republic Supply Company
Williamsport Wire Rope Co.

Pipe Insulation—
Johns-Manville, Inc.

Pipe Screwing Machines—
Buckeye Traction Ditcher Co.

Pipe Threading Machine—
Standard Engineering Company

Pipe Wrenches—
Continental Supply Company
Dunn Mfg. Co.
The Guiberson Corp.
Trimont Mfg. Co.
LeBus Rotary Tool Works
Republic Supply Company
J. H. Williams & Company
Wickwire Spencer Steel Corp.

Portable Buildings—
Butler Manufacturing Co.
International Derrick & Equipment Company

Portable Drilling Rigs—
Bridgeport Machinery Co.
Continental Supply Company
Lee C. Moore & Co.
Parkersburg Rig & Reel Co.
The National Supply Cos.

Pulleys—
Continental Supply Company
International Derrick & Equipment Company
Lee C. Moore & Co.

Pulling Machines—
Clark Machine Co.
Continental Supply Company
Iron King Mfg. Co.
Safety Pulling Machine Co.

Pumps—
Axelson Machine Company
Bradford Motor Works
Continental Supply Company
D. & B. Pump & Sup. Co.
Frick-Reid Supply Co.
Gardner Governor Company
Gaso Pump & Burner Mfg. Co.
Goulds Manufacturing Co.
Lucey Manufacturing Corp.
National Transit Pump & Mach. Co.
Oil Well Supply Company
Pelican Well Tool & Supply Co.
Republic Supply Company
Southern Engine & Pump Co.
Texas Oil Pump Co.
United Iron Works, Inc.

Portable Compressors—
Continental Supply Company
Sullivan Machinery Co.

Pumping Equipment—
Shaffer Specialty Company

Pumping Powers—
Continental Supply Company
Frick-Reid Supply Co.
International Supply Company
Jensen Bros. Mfg. Co.
Kansas City Hay Press Co.
Spence Machine Co.

Regulators—
Wescott and Greis

Refined Products—
Gulf Refining Co.
Humble Oil & Refining Co.
Magnolia Petroleum Company
Sinclair Refining Co.
Texas Company

Recorders—
Fort Worth Laboratories

Refinery Equipment—
American Tank Company
Butler Mfg. Co.
Continental Supply Company
Graver Corporation
Oil Conservation Engineering Co.
Republic Supply Company
Smith Separator Company
Titusville Iron Works
United Iron Works, Inc.
Wescott and Greis
Wyatt Metal & Boiler Works

Rig Irons—
Continental Supply Company
International Supply Co.
Lee C. Moore & Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.
Republic Supply Company

Rod and Tubing Protectors—
H. Rickman

Rotaries—
International Supply Company

Rotary Rock Bits—
Continental Supply Company
Hughes Tool Co.
Reed Roller Bit Co.

Rotary Fish Tail Bits—
Continental Supply Company
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Republic Supply Co.
W-K-M Co.

Safety Casing Clamps—
Shaffer Specialty Company

Sand Reel Supports—
Shaffer Specialty Company

Separators—
American Tank Company
Butler Mfg. Co.
Continental Supply Company
Lorraine Corporation
Smith Separator Company
Trumble Gas Trap Co.

Specialty Manufacturers—
Shaffer Specialty Company

Structural Steel—
Butler Mfg. Co.
United Iron Works, Inc.

Steel Derricks—
Continental Supply Company
Emsco Steel Products Co.
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.

Steel Crown Blocks—
Continental Supply Company
International Derrick & Equipment Company
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.
Superior Tube Co.

Steel Storage Tanks—
American Tank Company
Butler Mfg. Co.
Continental Supply Company
Graver Corporation

Still Covering—
Johns-Manville, Inc.

Stuffing Boxes—
A. W. Fawcett

Strainers—
Continental Supply Company
Emsco Steel Products Company
Layne & Bowler Co.
J. H. McEvoy & Co.
Pelican Well Tool & Supply Co.
W-K-M Co.

Sucker Rod Lines—
Continental Supply Company

Sucker Rod Elevators—
The Cunningham Co.

Sucker Rod Hangers—
Lorraine Corporation

Sucker Rod Guides—
H. Rickman
A. H. Brandon

Sucker Rod Hooks—
The Cunningham Co.

Sucker Rod Sockets—
Bradford Motor Works
Brown Welding & Machine Co.
Continental Supply Company
The Cunningham Company
Shaffer Specialty Company
Western Supply Company

Sucker Rods—
Axelson Machine Co.
Columbus Sucker Rod Co.
Continental Supply Company
D. & B. Pump & Sup. Co.
Dunn Mfg. Co.
Frick-Reid Supply Co.
S. M. Jones Co.
The National Supply Cos.
Oil Well Supply Company
J. P. Ratigan
Republic Supply Company

Swabs—
Continental Supply Company
The Cunningham Co.
Shaffer Specialty Company

Tank Bolts—
Continental Supply Company

Tanks—
American Tank Company
Butler Mfg. Co.
Black, Sivalls & Bryson
Continental Supply Company
The Brownell Co.
Gantz Tank Co.
Graver Corporation
Kansas City Struct. Steel Co.
Maloney Tank Co.
Parkersburg Rig & Reel Co.
United Iron Works
Wyatt Metal & Boiler Works

Tank Deadwood—
Robertson-McDonald Lumber Co.

Tank Equipment—
Continental Supply Company
Johns Manville, Inc.
Oil Conservation Engineering Co.
Parkersburg Rig & Reel Co.
Wescott and Greis

Tank Insulation—
Johns-Manville, Inc.

Tank Roofs—
Johns Manville, Inc.

Temper Screws—
Burns Tool Co.

Thermometers—
Continental Supply Company
Fort Worth Laboratories

Timbers—
Robertson-McDonald Lumber Co.

Tongs—
Bridgeport Machine Co.
Continental Supply Company
Dunn Mfg. Co.
Guiberson Corp.
LeBus Rotary Tool Works
Pelican Well Tool & Supply Co.
J. H. Williams & Company
Wilson & Willard Mfg. Co.
W-K-M Co.

Tool Joints—
Baash-Ross Tool Company
Bridgeport Machine Co.
Continental Supply Company
Emsco Steel Products Co.
Hughes Tool Co.
Pelican Well Tool & Sup. Co.
Regan Forge & Engineering Co.
Republic Supply Co.
W-K-M Co.

Tools (Fishing and Drilling)—
Acme Fishing Tool Co.
Bridgeport Machine Co.
Brown Welding & Machine Co.
Continental Supply Company
Frick-Reid Supply Co.
Houston Engineers, Inc.
Hughes Tool Co.
International Supply Co.
Oil Well Supply Company
Peden Iron & Steel Co.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Republic Supply Company
Star Drilling Machine Co.
Sullivan Machinery Co.
W-K-M Co.
Western Supply Company

Toothless Slips—
LeBus Rotary Tool Works

Tractor Winch—
Rock Island Plow Co.
Twin City Company

Traveling Blocks—
Baash-Ross Tool Company
Continental Supply Company
Lufkin Foundry & Machine Co.
Regan Forge & Engineering Co.

Tret-O-Lite—
W. S. Barnickel & Co.

Tubing Catcher—
Continental Supply Company
Dunn Mfg. Co.
Guiberson Corp.

Tubing Lines—
Continental Supply Company

Tubing—
Continental Supply Company
Republic Supply Company
Reading Iron Co.

Underreamers—
Bridgeport Machine Co.
Continental Supply Company
Wilson & Willard Mfg. Co.

Vacuum Pumps—
Continental Supply Company
Sullivan Machinery Co.

Valves—
Bradford Motor Works
Continental Supply Company
Darling Valve & Mfg. Co.
The Charles N. Hough Mfg. Co.
Ludlow Valve Mfg. Co.
Norris Bros.
Oil Conservation Engineering Co.
The Wm. Powell Co.
Pratt & Cady
Reading Steel Casting Co.
Reading Valve & Fittings Co.
Smith Separator Company
Sour Lake Machine Co.
Southern Brass Mfg. & Plating Co.
Texas Oil Pump Co.
Westcott Valve Mfg. Co.
W-K-M Co.

Valves and Fittings—
Continental Supply Company
Darling Valve & Mfg. Co.
D. & B. Pump & Sup. Co.
Ludlow Valve Mfg. Co.
Lufkin Foundry & Machine Co.
The National Supply Cos.
Peden Iron & Steel Co.
The Wm. Powell Company
Pittsburgh Reinforced Brazing and Machine Company
Pratt & Cady
Republic Supply Company
Reading Steel Casting Co.
Reading Valve & Fittings Co.
United Iron Works
W-K-M Co.

Vapor Tight Insulated Tank Tops—
Johns-Manville, Inc.

Walking Beams—
Continental Supply Company
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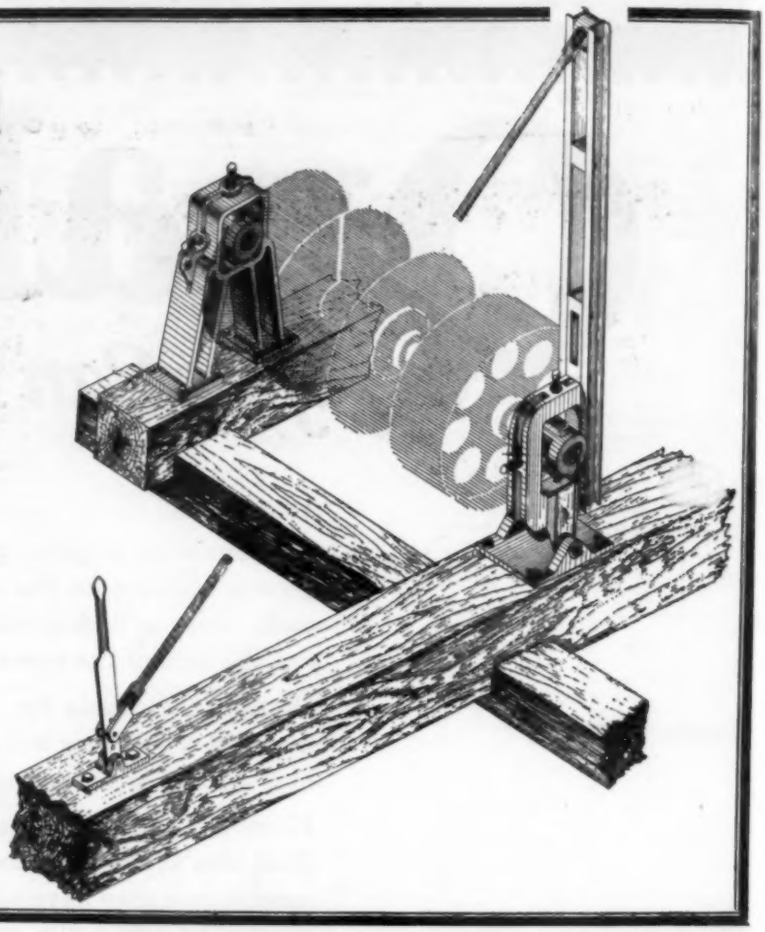

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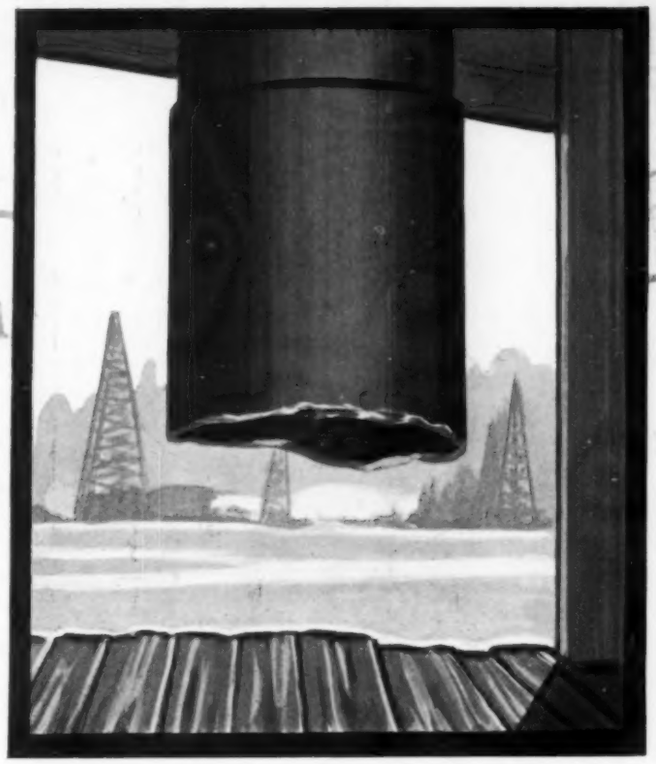

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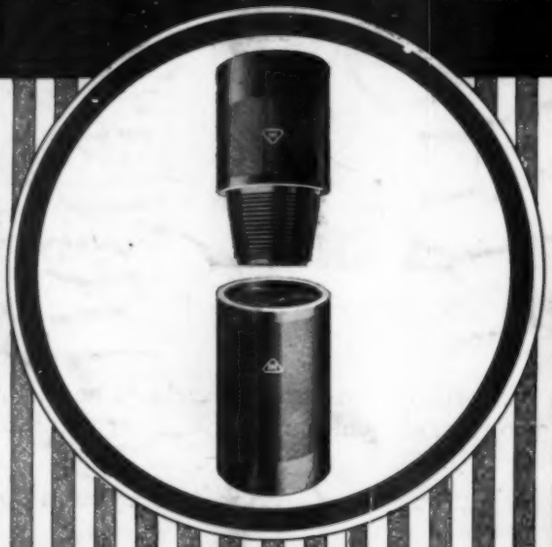

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